

2 795 SEARCH REQUEST FORM

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Scientific and Technical Information Center

Requester's Full Name: SARAH FOLLY Examiner #: 77851 Date: 9/26/00
 Art Unit: 1648 Phone Number 308-3983 Serial Number: 09/486342
 Mail Box and Bldg/Room Location: 8B-19 Results Format Preferred (circle) PAPER DISK E-MAIL
8E-12

If more than one search is submitted, please prioritize searches in order of need.

 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: An Attenuated Japanese encephalitis virus adapted to VERO cell
 Inventors (please provide full names): and a Japanese encephalitis vaccine
There are too many to write - see attached
 Earliest Priority Filing Date: 8/28/97 - 98 - no English translation

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for An attenuated Japanese encephalitis virus adapted to VERO cells. ~~has~~ has a multiplicity of more than 1×10^7 pfu/ml in VERO cells + LD₅₀/pfu for a young mouse is less than 10^{-6} .

The Japanese encephalitis virus is CJS0003 + is in a pharmaceutical carrier in an inactivated attenuated live ~~is~~ that is part of a vaccine.

Thank you!
 Sarah Folly

Please include an inventor name search - thanks.

Point of Contact:
 Beverly Shears
 Technical Info. Specialist
 CM 12C14 Tel: 308-4994

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Type of Search		Vendors and cost where applicable
Searcher: <u>Beverly C4994</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>09-27-00</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>12</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>17</u>	Other _____	Other (specify) _____

09/486392

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FILE COVERS 1967 - 27 Sep 2000 VOL 133 ISS 14
FILE LAST UPDATED: 26 Sep 2000 (20000926/ED)

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L1 552 SEA FILE=CAPLUS ABB=ON PLU=ON (JE OR JEV) (S) ENCEPHALIT? OR JAPANESE ENCEPHALIT? OR CJ50003 OR 50003
L2 39 SEA FILE=CAPLUS ABB=ON PLU=ON L1 AND VERO
L5 17 SEA FILE=CAPLUS ABB=ON PLU=ON L2 AND (VACCIN? OR IMMUNIS? OR IMMUNIZ?)

-key terms

L5 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 2000:629117 CAPLUS
TITLE: Hydrodynamic shear forces increase
Japanese encephalitis virus
production from microcarrier-grown Vero cells
AUTHOR(S): Wu, S.-C.; Huang, G. Y.-L.
CORPORATE SOURCE: Department of Life Science, National Tsing Hua University, Hsinchu, 30043, Taiwan
SOURCE: Bioprocess Eng. (2000), 23(3), 229-233
CODEN: BIENEU; ISSN: 0178-515X
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Understanding the effect of hydrodynamic shear forces on microcarrier-attached cells is crit. in several viral vaccine prodn. processes, owing to that only the
Searcher : Shears 308-4994

anchorage-dependent cells can be used for virus propagation in cultures. This study demonstrated that increasing the hydrodynamic shear forces in microcarrier cultures can increase the prodn. of a **vaccine strain of Japanese encephalitis** virus (on a per cell basis) in Vero cells but not BHK-21. The shear force-enhanced JEV prodn. were highly effective at around 2-3 d post infection and required the concn. of fetal bovine serum supplemented in medium above 2.5%. To our knowledge, this study reports for the first time that increasing the hydrodynamic shear forces on microcarrier-grown cells increases virus prodn. in agitated bioreactor cultures.

L5 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:241450 CAPLUS

DOCUMENT NUMBER: 132:292706

TITLE: Enhanced immunogen for inactivated

vaccine for infection with

Japanese encephalitis viruses

and process for producing the same

INVENTOR(S): Ishikawa, Toyokazu; Yoshii, Hironori; Onishi, Toshiyuki; Imagawa, Tadashi; Ishibashi, Masahide

PATENT ASSIGNEE(S): The Research Foundation for Microbial Diseases of Osaka University, Japan

SOURCE: PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000020565	A1	20000413	WO 1999-JP2931	19990602
W: AU, CA, CN, IN, JP, KR, SG, US, VN				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRIORITY APPLN. INFO.: JP 1998-319762 19981005

AB Provided are novel inactivated viral particles which induce higher antibody or antiserum titer by about 2-10 times than the conventional **vaccines** and an enhanced immunogenic envelope protein. The virus is a **Japanese encephalitis** virus ThCMar67/93 strain or Peking strain, and is suitable for grow in cultured cell line to avoid contamination (e.g. mouse brain-derived toxic substances) and cruelty of using animal. These viral particles are also useful in diagnostics for infection with **Japanese encephalitis** viruses.

REFERENCE COUNT: 9

REFERENCE(S): (1) Immuno Ag; EP 506714 A
(2) Immuno Ag; US 5719051 A

Searcher : Shears 308-4994

- (3) Immuno Ag; WO 9109935 A
 (4) Immuno Ag; JP 05502581 A 1993
 (8) Shi, H; Virologica Sinica 1998, V13(3), P208
 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:197589 CAPLUS

DOCUMENT NUMBER: 132:207030

TITLE: **Japanese encephalitis virus
(JEV) vaccine.**

INVENTOR(S): Kuzuhara, Shoji; Totsuka, Atsuko; Eto, Akira;
 Nishiyama, Kiyoto; Shiron, Yoichiro

PATENT ASSIGNEE(S): Chemo-Sero-Therapeutic Research Institute, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000083657	A2	20000328	JP 1999-188308	19990702
PRIORITY APPLN. INFO.:			JP 1998-197040	19980713

AB The JEV is prepd. by infection of the established cell of animal and insect such as African green monkey kidney such as **Vero** and GL37 cells. The infected cell is then grown by still culture, suspension culture, and roller bottle culture. Isolation of the JEV is also given.

L5 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:657157 CAPLUS

DOCUMENT NUMBER: 132:150370

TITLE: **Immunization with plasmid DNA encoding
the envelope glycoprotein of Japanese
Encephalitis virus confers significant
protection against intracerebral viral challenge
without inducing detectable antiviral antibodies**

AUTHOR(S): Ashok, M. S.; Rangarajan, P. N.

CORPORATE SOURCE: Department of Biochemistry, Indian Institute of
 Science, Bangalore, 560 012, India

SOURCE: Vaccine (1999), 18(1-2), 68-75

CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A plasmid DNA construct, pCMXENV encoding the envelope (E)
 glycoprotein of **Japanese Encephalitis virus** (

Searcher : Shears 308-4994

JEV), was constructed. This plasmid expresses the E protein intracellularly, when transfected into Vero cells in culture. The ability of pCMXENV to protect mice from lethal JEV infection was evaluated using an intracerebral (i.c.) JEV challenge model. Several independent immunization and JEV challenge expts. were carried out and the results indicate that 51 and 59% of the mice are protected from lethal i.c. JEV challenge, when immunized with pCMXENV via i.m. and intranasal (i.n.) routes, resp. None of the mice immunized with the vector DNA (pCMX) survived in any of these expts. JEV-specific antibodies were not detected in pCMXENV-immunized mice either before or after challenge. JEV-specific T cells were obsd. in mice immunized with pCMXENV which increased significantly after JEV challenge indicating the presence of vaccination-induced memory T cells. Enhanced prodn. of interferon-.gamma. (IFN-.gamma.) and complete absence of interleukin-4 (IL-4) in splenocytes of pCMXENV-immunized mice on restimulation with JEV antigens in vitro indicated that the protection is likely to be mediated by T helper (Th) lymphocytes of the Th1 sub-type. In conclusion, our results demonstrate that immunization with a plasmid DNA expressing an intracellular form of JEV E protein confers significant protection against i.c. JEV challenge even in the absence of detectable antiviral antibodies.

REFERENCE COUNT: 54
 REFERENCE(S): (1) Abbas, A; Science 1996, V383, P787 CAPLUS
 (2) Aihara, H; J Virol 1998, V72, P8032 CAPLUS
 (3) Chambers, T; Ann Rev Microbiol 1990, V44, P649 CAPLUS
 (4) Daheshia, M; J Immunol 1997, V159, P1945 CAPLUS
 (5) Davis, H; Human Gene Therapy 1995, V6, P1447 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 1999:534410 CAPLUS
 DOCUMENT NUMBER: 132:120843
 TITLE: Study on a purified and inactivated
 japanese encephalitis
 vaccine prepared on vero cells
 using SA14-14-2 attenuated virus strain
 AUTHOR(S): Yao, Zhihui; Dong, Guanmu; Yu, Yongxin
 CORPORATE SOURCE: National Institute for the Control of
 Pharmaceutical and Biological Products, Beijing,
 100050, Peop. Rep. China
 SOURCE: Zhonghua Shiyen He Linchuang Bingduxue Zazhi
 (1999), 13(2), 191-193
 CODEN: ZSLZFS; ISSN: 1003-9279
 PUBLISHER: Zhonghua Shiyen He Linchuang Bingduxue Zazhi
 Searcher : Shears 308-4994

Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB A **JE** attenuated virus strain SA14-14-2 was adapted on **Vero** cells for prepn. of purified inactivated **vaccine** to develop a kind of new **Japanese Encephalitis (JE) vaccine** prepd. on **Vero** cells. Comparison of the growth curves of SA14-14-2 in roller bottle and in spinner flask was made. The cultures were replaced with serum-free MEM, the culture supernatants were harvested on day 2, 4, 6 after inoculation after the virus inoculation and absorption on **Vero** cells for 2 h. The virus fluids were pooled, concd. by 8% PEG, and purified on 15%-60% sucrose d. gradients. The purified virus was inactivated with 0.02% formalin. It showed that virus titer was higher and maintained longer in roller bottle. Mice **vaccinated** twicely with 0.5 .mu.g dose of the purified inactivated **vaccine** induced neutralizing antibody titers equal to that of the mice **vaccinated** with primary hamster kidney inactivated **vaccine**. This inactivated **JE vaccine** prepd. from SA14-14-2 strain-infected **Vero** cell could be used for human as a kind of new **JE vaccine**.

L5 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:253109 CAPLUS

DOCUMENT NUMBER: 131:86613

TITLE: Recombinant, chimeric live, attenuated **vaccine** (ChimeriVax) incorporating the envelope genes of **Japanese encephalitis** (SA14-14-2) virus and the capsid and nonstructural genes of yellow fever (17D) virus is safe, immunogenic and protective in non-human primates

AUTHOR(S): Monath, T. P.; Soike, K.; Levenbook, I.; Zhang, Z.-X.; Arroyo, J.; Delagrave, S.; Myers, G.; Barrett, A. D. T.; Shope, R. E.; Ratterree, M.; Chambers, T. J.; Guirakhoo, F.

CORPORATE SOURCE: OraVax Inc., Cambridge, MA, 02139, USA

SOURCE: Vaccine (1999), 17(15-16), 1869-1882

CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Yellow fever 17D virus, a safe and effective live, attenuated **vaccine**, was used as a vector for genes encoding the protective antigenic determinants of a heterologous member of the genus Flavivirus, **Japanese encephalitis (JE)** virus, the leading cause of acute viral central nervous system infection and death throughout Asia. The viral envelope (prM

Searcher : Shears 308-4994

and E) genes of a full-length cDNA clone of YF 17D virus were replaced with the corresponding genes of JE SA14-14-2, a strain licensed as a live, attenuated **vaccine** in China. Full-length RNA transcripts of the YF/JE chimaera were used to transfect **Vero** cells. The progeny virus (named "ChimeriVax-JE"), was used to define safety after intracerebral (IC) inoculation of rhesus monkeys. Monkeys (N = 3) inoculated with a high dose (6.6 log₁₀ pfu) developed a brief viremia, showed no signs of illness, developed high titers of anti-JE neutralizing antibody, and had minimal brain and spinal cord lesion scores according to criteria specified in the WHO monkey neurovirulence test. A control group of 3 monkeys that received a lower dose (4.2 log₁₀ pfu) of com. YF 17D **vaccine** had slightly higher lesion scores. To develop a lethal monkey model of JE for **vaccine** protection tests, we inoculated groups of monkeys IC or intranasally (IN) with a JE virus strain found to be highly neurovirulent and neuroinvasive for mice. Monkeys inoculated IC, but not IN, developed severe encephalitis after an incubation period of 8-13 days. The ChimeriVax-JE virus was passed in a cell line acceptable for human use (diploid fetal rhesus lung) and 4.3 or 5.3 log₁₀ pfu were inoculated into groups of 3 monkeys by the s.c. route. All 6 animals developed brief viremias (peak titer < 2.0 log₁₀ pfu/mL) and subsequently had anti-JE but no yellow fever neutralizing antibodies. On day 64, the monkeys were challenged IC with 5.5 log₁₀ pfu of virulent JE virus. The **immunized** animals had no detectable viremia post-challenge, whereas 4 unimmunized controls became viremic. Only 1 of 6 (17%) **vaccinated** monkeys but 4 of 4 (100%) unvaccinated controls developed encephalitis. Histopathol. examn. 30 days after challenge confirmed that the protected, **immunized** animals had no or minimal evidence of encephalitis. These data demonstrated the ability of the ChimeriVax-JE to induce a rapid humoral immune response and to protect against a very severe, direct intracerebral virus challenge. Target areas of neuronal damage and inflammation in monkeys infected IC with wild-type JE, the chimeric virus and YF 17D were similar, indicating that the histopathol. scoring system used for the WHO yellow fever monkey neurovirulence test will be applicable to control testing of chimeric seed viruses and **vaccines**.

REFERENCE COUNT:

44

REFERENCE(S):

- (1) Aihara, H; J Virol 1998, V72, P8032 CAPLUS
 - (2) Aihara, S; Virus Genes 1991, V5, P95 CAPLUS
 - (3) Barrett, A; Biologicals 1997, V25, P17 CAPLUS
 - (13) Konishi, E; J Virol 1998, V72, P4925 CAPLUS
 - (14) Kreil, T; J Virol 1998, V72, P3076 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:189180 CAPLUS

Searcher : Shears 308-4994

DOCUMENT NUMBER: 130:213608
 TITLE: An attenuated **Japanese encephalitis** virus adapted to **Vero** cell and a **Japanese encephalitis vaccine**
 INVENTOR(S): Kim, Hyun Su; Yoo, Wang Don; Kim, Soo Ok; Lee, Sung Hee; Moon, Sang Bum; Hong, Sun Pyo; Shin, Yong Cheol; Chung, Yong Ju; Eckels, Kenneth H.; Innis, Bruce; Putnak, Joseph R.; Binn, Leonard N.; Srivastava, Ashok K.; Dubois, Doria R.
 PATENT ASSIGNEE(S): Cheil Jedang Corporation, S. Korea; Walter Reed Army Institute of Research
 SOURCE: PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911762	A1	19990311	WO 1998-KR259	19980825
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9890047	A1	19990322	AU 1998-90047	19980825
EP 1025209	A1	20000809	EP 1998-941885	19980825
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL				
PRIORITY APPLN. INFO.:			KR 1997-42001	19970828
			KR 1997-42002	19970828
			WO 1998-KR259	19980825

AB SThe present invention relates to an attenuated **Japanese encephalitis** virus adapted to **Vero** cell by passages on **Vero** cell and a **Japanese encephalitis vaccine** comprising said attenuated virus. **Japanese encephalitis** virus adapted to **Vero** cell after 4 passage was used for prepn. of a **vaccine**. The titer of neutralizing antibodies (the reciprocal of serum diln. resulting in 50% redn. of mouse brain passaged Nakayama virus plaques) for both purified, inactivated virus (PIV) and live, attenuated virus in mice at a dose of 5 .mu.g was 1:320. Mice were **immunized** with 2 inoculations of test **vaccines** (comprising PIV) spaced 3 wk apart, then

Searcher : Shears 308-4994

challenged with 500 pfu of mouse-neurovirulent Nakayama virus. Mice immunized with 500 ng of PIV or 50 ng PIV and alum showed 100% protection.

REFERENCE COUNT: 3
 REFERENCE(S): (1) Division Of Microbiology; EP 0562136 A1 1993
 (2) Nippon Zoki Pharmaceut Co Ltd; JP 01117780 A 1989
 (3) Tekada Chem Ind Ltd; JP 02223531 A 1990

L5 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:761290 CAPLUS

DOCUMENT NUMBER: 130:200793

TITLE: Large scale purification of inactivated
Japanese encephalitis
vaccine from Vero cells by
 zonal centrifugation

AUTHOR(S): Shi, Huiyin; Ding, Zhifeng; Zhao, Min; Pang, Chenghua; Yang, Kangkang; Li, Jin
 CORPORATE SOURCE: National Vaccine and Serum Institute, Beijing, 100024, Peop. Rep. China
 SOURCE: Zhongguo Bingduxue (1998), 13(3), 208-213
 CODEN: ZBINER; ISSN: 1003-5125
 PUBLISHER: Kexue Chubanshe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

AB The **Japanese encephalitis vaccine** in Vero cell was easily purified by zonal centrifugation at non-continuous sucrose gradients of 36 and 60%, 32600 g for 4 h. The calf serum protein and other nonviral proteins in the **vaccine** were almost all sepd. from the JE virus. The residue calf serum protein was < 0.5 .mu.g/mL, and the total protein was < 30 mg/mL; and the residue vero cell vero cell DNA in the **vaccine** was < 100 pg/0.5 mL. The titer of the purified **vaccine** was 6 times higher vs. the Chinese control **vaccine**. The results suggest that the method is valid to purify JE **vaccine** from vero cells in large scale because of its simple, rapid, and inexpensive nature.

L5 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:755288 CAPLUS

DOCUMENT NUMBER: 130:195818

TITLE: Comparisons of microcarrier cell culture processes in one hundred mini-liter spinner flask and fifteen-liter bioreactor cultures
 AUTHOR(S): Wu, Suh-Chin; Hsieh, Wen-Chin; Liau, Ming-Yi
 CORPORATE SOURCE: Department of Life Science, National Tsing Hua University, Hsinchu, Taiwan
 SOURCE: Bioprocess Eng. (1998), 19(6), 431-434
 CODEN: BIENEU; ISSN: 0178-515X
 Searcher : Shears 308-4994

PUBLISHER: Springer-Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Microcarrier cell culture process can be used to culture anchorage-dependent cells in large bioreactor vessels. The process performance in large bioreactors is usually less prominent than that in spinner flask vessels and bench scale reactors. In this study we investigated the microcarrier cell culture processes in 100 mL spinner flask and 15-L bioreactor cultures, including the kinetics for cell attachment, cell growth and the prodn. of **Japanese encephalitis vaccine** strain (Beijing-1) virus. Under a fixed concn. of microcarrier and cell d. used in inoculations, the attachment kinetics of **Vero** cells on Cytodex 1 microcarrier in a 15-L bioreactor vessel was 2 folds slower than with 100 mL spinner flask culture. Virus replication in 15-L bioreactor culture also revealed an approx. one day lag-time compared to 100 mL spinner flask culture. Findings presented herein provide valuable information for designing and operating microcarrier cell culture processes in large bioreactor vessels.

REFERENCE COUNT: 10

REFERENCE(S): (1) Aunins, J; BHR Group Conference Series 1993, P175 CAPLUS
 (4) Himes, V; Biotechnol Bioeng 1987, V29, P1155 CAPLUS
 (5) Hu, W; Biotechnol Bioeng 1985, V27, P1466 CAPLUS
 (6) Montagnon, B; Developments in Biological Standardization 1981, V47, P55 MEDLINE
 (10) Venkat, R; Biotech Bioeng 1996, V49, P456 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:733317 CAPLUS

DOCUMENT NUMBER: 130:121894

TITLE: Characterization of an attenuated **Japanese encephalitis** virus adapted to African green monkey kidney cells, **Vero**

AUTHOR(S): Chung, Yong-Ju; Hong, Sun Pyo; Moon, Sang Beom; Shin, Young-Cheol; Kim, Soo-Ok

CORPORATE SOURCE: R & D Center, Cheiljedang Corp., Kyonggi-Do, 467-810, S. Korea

SOURCE: J. Microbiol. (Seoul) (1998), 36(3), 189-195
 CODEN: JOMIFG; ISSN: 1225-8873

PUBLISHER: Microbiological Society of Korea

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Live attenuated **Japanese encephalitis** (

Searcher : Shears 308-4994

JE) virus SA14-14-2 produced in primary dog kidney cells (PDK) was adapted to African green monkey kidney cells, Vero. In an effort to gain insight into the mol. basis of the biol. characteristics of the isolated SA14-14-2 (Vero) strain, the 1500 nucleotide sequence encoding the envelope (E) gene which possesses major neutralizing epitopes was detd. and compared with the sequences of two other attenuated JE virus strains, SA14-14-2 (PHK) and SA14-14-2 (PDK). The amino acid sequence of the C-terminal region (a.a. 280-500) of the SA14-14-2 (Vero) E gene was identical to those of strains SA14-14-2 (PHK) and SA14-14-2 (PDK), while the N-terminal region (a.a. 1-279) showed sequence variation. The distribution of mutations in the N-terminal region was nearly the same among the three attenuated strains, suggesting that the N-terminal sequences might be related with virus-host cell specificity. However, it was found that Lys and Val (a.a.138 and 176, resp.), known to be responsible for attenuation, are still conserved in SA14-14-2 (Vero). Animal testing showed that SA14-14-2 (Vero) has a neurovirulence phenotype similar to that of the parent SA14-14-2 (PDK) strain in suckling mice. The SA14-14-2 (Vero) grew very efficiently in Vero cells enough to support vaccine prodn. The growth characteristics of SA14-14-2 (Vero) in Vero cell and conservation of attenuation determinant of neurovirulence support that SA14-14-2 (Vero) could be developed as a new vaccine strain for human use.

REFERENCE COUNT: 20
 REFERENCE(S): (8) Hasegawa, H; Virology 1992, V191, P158
 CAPLUS
 (9) Heinz, F; Adv Virus Res 1986, V31, P103
 CAPLUS
 (10) Holzmann, H; J Virol 1990, V64, P5156
 CAPLUS
 (12) Ni, H; J Gen Virol 1995, V76, P401 CAPLUS
 (13) Ni, H; J Gen Virol 1995, V76, P409 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 1998:615676 CAPLUS
 DOCUMENT NUMBER: 130:64959
 TITLE: Production of purified Japanese
 encephalitis vaccine from
 vero cells with roller bottles
 AUTHOR(S): Ding, Zhifen; Shi, Huiying; Pang, Chenghua;
 Chang, Zhenyan; Zhao, Min; Li, Jing; Yang,
 Kangkang; Liu, Peisheng
 CORPORATE SOURCE: National Vaccine + Serum Institute, Beijing,
 100024, Peop. Rep. China
 SOURCE: Zhonghua Yixue Zazhi (1998), 78(4), 261-262
 CODEN: CHHTAT; ISSN: 0376-2491
 Searcher : Shears 308-4994

PUBLISHER: Zhonghua Yixue Zazhi
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

AB The prodn. process of purified **Japanese encephalitis (JE) vaccine** from **Vero** cells cultivated in roller bottles was studied to improve the quality of **JE vaccine**. The 15L roller bottles were used for propagation of **Vero** cells and JE virus, then the virus was inactivated, concd., treated by protamine sulfate, purified by sucrose gradient d. centrifugation and lyophilized as final product. Three batches of high quality lyophilized **vaccine** were produced. The quality control tests of **vaccine** for human use were passed. It is feasible to use roller bottles to cultivate continuous cell line-**Vero** cells for JE **vaccine** prodn.

L5 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:467590 CAPLUS
 DOCUMENT NUMBER: 129:213886
 TITLE: Antigenic characterization of nine wild-type Taiwanese isolates of **Japanese encephalitis** virus as compared with two **vaccine** strains
 AUTHOR(S): Wu, Suh-Chin; Lian, Wei-Cheng; Hsu, Li-Ching; Wu, Ying-Chang; Liao, Ming-Yi
 CORPORATE SOURCE: Department of Life Science, National Tsing Hua University, Hsinchu, Taiwan
 SOURCE: Virus Res. (1998), 55(1), 83-91
 CODEN: VIREDF; ISSN: 0168-1702
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The antigenic properties of nine wild-type **Japanese encephalitis** viruses isolated in Taiwan during 1990-1994 were investigated by comparison with two inactivated **vaccine** strains (Beijing-1, Nakayama-NIH). All of the nine Taiwanese isolates were found to induce higher cytopathol. in **Vero** cells but showed similar mouse virulence as the two **vaccine** strains. Antigenic characterization using six E protein-specific monoclonal antibodies shows two of the nine wild-type isolates (i.e. CH1949 and CH2195) presented different antigenic properties of hemagglutination inhibition and plaque redn. neutralization. The E-protein gene nucleotide sequences of CH1949 and CH2195 were detd. and compared with other published sequences of the two **vaccine** strains and other 19 Asian/Taiwanese isolates. Phylogenetic tree anal. indicates these two wild-type Taiwanese isolates are more distant from the two **vaccine** strains.

L5 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2000 ACS

Searcher : Shears 308-4994

ACCESSION NUMBER: 1998:78333 CAPLUS
DOCUMENT NUMBER: 128:191087
TITLE: Attenuation of **Japanese encephalitis** virus by selection of its mouse brain membrane receptor preparation escape variants
AUTHOR(S): Ni, Haolin; Barrett, Alan D. T.
CORPORATE SOURCE: Department of Pathology and Center for Tropical Diseases, University of Texas Medical Branch, Galveston, TX, 77555-0609, USA
SOURCE: Virology (1998), 241(1), 30-36
CODEN: VIRLAX; ISSN: 0042-6822
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Six variants of **Japanese encephalitis** (JE) virus strain P3 were selected for resistance to binding to mouse brain membrane receptor preps. (MRP). All but one of these MRP escape (MRPR) variants were significantly attenuated in mice for both neuroinvasiveness (>200-fold) and neurovirulence (>500-fold) compared to their parent virus. Attenuated mouse brain MRPR variants could be detected in the sera of mice following either intracerebral (i.c.) or i.p. inoculation, whereas virus was detected only in brains of mice following ic inoculation. **Immunization** of mice with MRPRs induced neutralizing antibodies and protected mice against challenge with wild-type JE virus. A common amino acid mutation was found in the envelope (E) protein gene of all attenuated mouse brain MRPR variants at residue E-306 compared to P3 virus grown in mosquito C6-36 cells or plaque purified and amplified in monkey kidney Vero cells. This amino acid is putatively responsible for attenuation due to alteration in binding of JE virus to its cell receptor in mouse brain. The methodol. developed in this study has general applicability to the attenuation of virulence of viruses and to the identification of agents that will block amino acids in a viral attachment protein(s) that interacts with cell receptors.

L5 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:72882 CAPLUS
DOCUMENT NUMBER: 128:225720
TITLE: Inhibitory effect of furanonaphthoquinone derivatives on the replication of **Japanese encephalitis** virus
AUTHOR(S): Takegami, Tsutomu; Simamura, Eriko; Hirai, Kei-Ichi; Koyama, Junko
CORPORATE SOURCE: Uchinada, Medical Research Institute Kanazawa Medical University, Ishikawa, 920-02, Japan
SOURCE: Antiviral Res. (1998), 37(1), 37-45
CODEN: ARSRDR; ISSN: 0166-3542
Searcher : Shears 308-4994

PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB **Japanese encephalitis** still occurs in endemic and epidemic forms over a wide area of Asia. Although the **vaccine against Japanese encephalitis virus (JEV)** is widely used, no antiviral drug has been reported. The authors used several different kinds of furanonaphthoquinone derivs. and found antiviral activity against JEV. Esp., 2-methylnaphtho[2,3-b]furan-4,9-dione (FNQ3) indicated the highest antiviral activity, followed by 2-(1-hydroxyethyl)-, 5(or 8)-hydroxy-, and 2-methyl-5(or 8)-hydroxy-analogs of naphtho[2,3-b]furan-4,9-dione. In the presence of 3 .mu.g/mL FNQ3, the virus yields in **Vero** cells were 2.times.10⁵ PFU/mL at 24 h after infecting with the virus and 10 of the control level. Western blot anal. using anti-E rabbit sera or anti-NS3 showed that the expression of viral proteins was inhibited by treatment with FNQ3. In addn., Northern blot anal. indicated that the appearance of JEV-RNA was also inhibited by FNQ3. These results suggest that FNQ3 inhibits JEV replication through viral RNA and protein synthesis.

L5 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 1997:224363 CAPLUS
 DOCUMENT NUMBER: 126:209287
 TITLE: Virus purification by chromatography
 INVENTOR(S): Fanget, Bernard; Francon, Alain
 PATENT ASSIGNEE(S): Pasteur Merieux Serums Et Vaccins, Fr.; Fanget, Bernard; Francon, Alain
 SOURCE: PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9706243	A1	19970220	WO 1996-FR1064	19960708
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
FR 2737730	A1	19970214	FR 1995-9851	19950810
FR 2737730	B1	19970905		
CA 2226312	AA	19970220	CA 1996-2226312	19960708
Searcher : Shears 308-4994				

09/486392

AU 9664964 A1 19970305 AU 1996-64964 19960708
AU 712490 B2 19991111
EP 848752 A1 19980624 EP 1996-924954 19960708
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT,
IE, FI
CN 1199419 A 19981118 CN 1996-197568 19960708
BR 9609837 A 19990309 BR 1996-9837 19960708
US 6008036 A 19991228 US 1998-11503 19980522
PRIORITY APPLN. INFO.: FR 1995-9851 19950810
WO 1996-FR1064 19960708

AB A method for purifying viruses from a cell line (VERO) culture by chromatog. is disclosed that comprises an anion-exchange chromatog. step followed by a cation-exchange chromatog. step and optionally a metal-binding affinity chromatog. step. The method is particularly suitable for producing viruses for use in vaccines.

L5 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:470348 CAPLUS
DOCUMENT NUMBER: 119:70348
TITLE: Flavivirus vaccines using poxvirus expression vectors
INVENTOR(S): Paoletti, Enzo; Pincus, Steven Elliot
PATENT ASSIGNEE(S): Virogenetics Corp., USA
SOURCE: PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 34
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9203545	A1	19920305	WO 1991-US5816	19910815
W: AU, GB, JP, KR				
US 5514375	A	19960507	US 1991-714687	19910613
AU 9187287	A1	19920317	AU 1991-87287	19910815
AU 657711	B2	19950323		
GB 2269820	A1	19940223	GB 1993-3023	19910815
GB 2269820	B2	19950329		
JP 06503227	T2	19940414	JP 1991-516619	19910815
AU 9931252	A1	19990916	AU 1999-31252	19990525
PRIORITY APPLN. INFO.:				
			US 1990-567960	19900815
			US 1991-711429	19910606
			US 1991-714687	19910613
			US 1991-729800	19910717
			US 1991-666056	19910307
			US 1991-713967	19910611
			WO 1991-US5816	19910815

Searcher : Shears 308-4994

AU 1995-22755 19950406

AB Poxvirus that carry structural proteins of flavivirus are prepd. for use in **vaccines** by expression of the modified genome in animal cell culture. **Japanese encephalitis** virus (**JEV**) genes encoding the proteins M, E, NS1, and NS2 were introduced into a thymidine kinase-deficient **vaccinia** virus (Copenhagen strain) and these viruses introduced into BHK cells. The JEV NS1 gene was expressed in these cells and the protein product was properly processed. Similarly, the hemagglutinin (E protein) gene was also correctly expressed. One of the recombinant **vaccinia** viruses directed secretion of empty **vaccinia** virus particles contg. the JEV E and M proteins. These virus particles were able to induce protective antibodies in mice. The construction of a **vaccinia** virus lacking a no. of pathogenesis-related functions for use as a host is described.

L5 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1983:591523 CAPLUS

DOCUMENT NUMBER: 99:191523

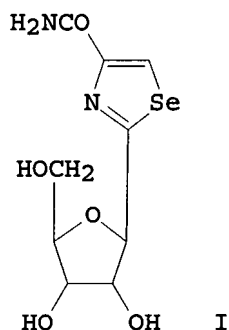
TITLE: Broad-spectrum antiviral activity of
2-.beta.-D-ribofuranosylselenazole-4-
carboxamide, a new antiviral agentAUTHOR(S): Kirsi, Jorma J.; North, James A.; McKernan,
Patricia A.; Murray, Byron K.; Canonico, Peter
G.; Huggins, John W.; Srivastava, Prem C.;
Robins, Roland K.CORPORATE SOURCE: Dep. Microbiol., Brigham Young Univ., Provo, UT,
84602, USASOURCE: Antimicrob. Agents Chemother. (1983), 24(3),
353-61

CODEN: AMACCQ; ISSN: 0066-4804

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB The relative in vitro antiviral activities of 3 related nucleoside carboxamides, ribavirin, tiazofurin, and selenazole (2-.beta.-D-ribofuranosylselenazole-4-carboxamide) (I), were studied against selected DNA and RNA viruses. Although the activity of selenazole against different viruses varied, it was significantly more potent than ribavirin and tiazofurin against all tested representatives of the families Paramyxoviridae (parainfluenza virus type 3, mumps virus, measles virus), Reoviridae (reovirus type 3), Poxviridae (**vaccinia** virus), Herpesviridae (herpes simplex virus types 1 and 2), Togaviridae (Venezuelan equine encephalomyelitis virus, yellow fever virus, **Japanese encephalitis** virus), Bunyaviridae (Rift Valley fever virus, sandfly fever virus, Korean hemorrhagic fever virus), Arenaviridae (Pichinde virus), Picornaviridae (coxsackie viruses B1 and B4, echovirus type 6, encephalomyocarditis virus), Adenoviridae (adenovirus type 2), and Rhabdoviridae (vesicular stomatitis virus). The antiviral activity of selenazole was also cell line-dependent, being greatest in HeLa, **Vero-76**, and **Vero E6** cells. Selenazole was relatively nontoxic for **Vero**, **Vero-76**, **Vero E6**, and HeLa cells at concns. of .1 to req. 1000 .mu.g/mL. The relative plating efficiency at that concn. was >90%. The effects of selenazole on viral replication were greatest when this agent was present at the time of viral infection. The removal of selenazole from the medium of infected cells did not reverse the antiviral effect against **vaccinia** virus, but there was a gradual resumption of viral replication in cells infected with parainfluenza type 3 or herpes simplex virus type 1. However, the antiviral activity of ribavirin against the same viruses was reversible when the drug was removed.

(FILE MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPIUS, JAPIO, TOXLIT, TOXLINE, PHIC, PHIN' ENTERED AT 11:58:34 ON 27 SEP 2000)

L6 233 S L2

L7 64 S L6 AND (VACCIN? OR IMMUNIS? OR IMMUNIZ?)

Searcher : Shears 308-4994

09/486392

L8 42 DUP REM L7 (22 DUPLICATES REMOVED)

L8 ANSWER 1 OF 42 COPYRIGHT 2000 PJB

ACCESSION NUMBER: 2000:15785 PHIC
DOCUMENT NUMBER: S00680498
DATA ENTRY DATE: 22 Sep 2000
TITLE: Peptide to change name and list on Nasdaq
SOURCE: Scrip (2000)
DOCUMENT TYPE: Newsletter
FILE SEGMENT: FULL

L8 ANSWER 2 OF 42 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

ACCESSION NUMBER: 2000-303759 [26] WPIDS
DOC. NO. CPI: C2000-092278
TITLE: Novel inactivated viral particles, useful as
vaccines against and in the diagnosis of
infection with **Japanese**
encephalitis viruses, is prepared from an
infective cell culture of a **Japanese**
encephalitis virus.
DERWENT CLASS: B04 D16
INVENTOR(S): IMAGAWA, T; ISHIBASHI, M; ISHIKAWA, T; ONISHI, T;
YOSHII, H
PATENT ASSIGNEE(S): (OSAU) UNIV OSAKA
COUNTRY COUNT: 27
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 2000020565	A1	20000413	(200026)*	JA	42
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU CA CN IN JP KR SG US VN					
AU 9940578	A	20000426	(200036)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 2000020565	A1	WO 1999-JP2931	19990602
AU 9940578	A	AU 1999-40578	19990602

FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 9940578	A Based on	WO 200020565

PRIORITY APPLN. INFO: JP 1998-319762 19981005
Searcher : Shears 308-4994

AN 2000-303759 [26] WPIDS

AB WO 200020565 A UPAB: 20000531

NOVELTY - Inactivated immunogenic viral particles (I) prepared from an infective cell culture of a **Japanese encephalitis** virus are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) producing (I) comprising culturing a cell line infected with a virus belonging to the **Japanese encephalitis** viruses, inactivating and then purifying the cell culture;

(2) an inactivated **vaccine** comprising (I); and

(3) a diagnostic agent for **Japanese encephalitis** viruses comprising all or a part of (I) as an antigen.

ACTIVITY - Antiviral; immunomodulatory.

MECHANISM OF ACTION - **Vaccine**. No biological data is given.

USE - (I) are useful for treatment, diagnosis and as **vaccines** against **Japanese encephalitis** virus infection (claimed).

ADVANTAGE - The neutralization antibody potency of antiserum produced by **immunization** with the new viral particles (I) is 2 to 10 times as much as the conventional **vaccines** cultured in mouse brain. The new viral particles can be produced on a large scale and at low cost without sacrificing mice.
Dwg.0/1

L8 ANSWER 3 OF 42 SCISEARCH COPYRIGHT 2000 ISI (R)

ACCESSION NUMBER: 2000:420505 SCISEARCH

THE GENUINE ARTICLE: 317RL

TITLE: Recombinant chimeric yellow fever-dengue type 2 virus is immunogenic and protective in nonhuman primates

AUTHOR: Guirakhoo F (Reprint); Weltzin R; Chambers T J; Zhang Z X; Soike K; Ratterree M; Arroyo J; Georgakopoulos K; Catalan J; Monath T P

CORPORATE SOURCE: ORAVAX INC, 38 SIDNEY ST, CAMBRIDGE, MA 02139 (Reprint); ST LOUIS UNIV, SCH MED, DEPT MOL MICROBIOL & IMMUNOL, ST LOUIS, MO 63104; TULANE REG PRIMATE RES CTR, COVINGTON, LA 70433

COUNTRY OF AUTHOR: USA

SOURCE: JOURNAL OF VIROLOGY, (JUN 2000) Vol. 74, No. 12, pp. 5477-5485.

Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904.

ISSN: 0022-538X.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

Searcher : Shears 308-4994

LANGUAGE: English

REFERENCE COUNT: 32

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A chimeric yellow fever (YF)-dengue type 2 (dengue-2) virus (ChimeriVax-D2) was constructed using a recombinant cDNA infectious clone of a YF **vaccine** strain (YF 17D) as a backbone into which we inserted the premembrane (prM) and envelope (E) genes of dengue-2 virus (strain PUO-218 from a case of dengue fever in Bangkok, Thailand). The chimeric virus was recovered from the supernatant of Vero cells transfected with RNA transcripts and amplified once in these cells to yield a titer of 6.3 log(10) PFU/ml. The ChimeriVax-D2 was not neurovirulent for 4-week-old outbred mice inoculated intracerebrally. This virus was evaluated in rhesus monkeys for its safety (induction of viremia) and protective efficacy (induction of anti-dengue-2 neutralizing antibodies and protection against challenge). In one experiment, groups of non-YF-immune monkeys received graded doses of ChimeriVax-D2; a control group received only the **vaccine** diluents. All monkeys (except the control group) developed a brief viremia and showed no signs of illness. Sixty-two days postimmunization, animals were challenged with 5.0 log(10) focus forming units (FFU) of a wild-type dengue-2 virus. No viremia (<1.7 log(10) FFU/ml) was detected in any **vaccinated** group, whereas all animals in the placebo control group developed viremia. All **vaccinated** monkeys developed neutralizing antibodies in a dose-dependent response. In another experiment, viremia and production of neutralizing antibodies were determined in YF-immune monkeys that received either ChimeriVax-D2 or a wild-type dengue-2 virus. Low viremia was detected in ChimeriVax-D2-inoculated monkeys, whereas all dengue-2-**immunized** animals became viremic. All of these animals were protected against challenge with a wild-type dengue-2 virus, whereas all YF-immune monkeys and nonimmune controls became viremic upon challenge. Genetic stability of ChimeriVax-D2 was assessed by continuous In vitro passage in VeroPM cells. The titer of ChimeriVax-D2, the attenuated phenotype for 4-week-old mice, and the sequence of the inserted prME genes were unchanged after 18 passages in Vero cells. The high replication efficiency, attenuation phenotype in mice and monkeys, immunogenicity and protective efficacy, and genomic stability of ChimeriVax-D2 justify it as a novel **vaccine** candidate to be evaluated in humans.

L8 ANSWER 4 OF 42 MEDLINE

ACCESSION NUMBER: 2000219418 MEDLINE

DOCUMENT NUMBER: 20219418

TITLE: A single intramuscular injection of recombinant plasmid DNA induces protective immunity and prevents Japanese encephalitis in mice.

AUTHOR: Chang G J; Hunt A R; Davis B

Searcher : Shears 308-4994

09/486392

CORPORATE SOURCE: Division of Vector-Borne Infectious Diseases, Centers
for Disease Control and Prevention, Public Health
Service, U.S. Department of Health and Human
Services, Fort Collins, Colorado 80522, USA..
gxc7@cdc.gov

SOURCE: JOURNAL OF VIROLOGY, (2000 May) 74 (9) 4244-52.
Journal code: KCV. ISSN: 0022-538X.

PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals; Cancer Journals

ENTRY MONTH: 200007

ENTRY WEEK: 20000703

AB Plasmid vectors containing **Japanese encephalitis**
virus (**JEV**) premembrane (prM) and envelope (E) genes were
constructed that expressed prM and E proteins under the control of a
cytomegalovirus immediate-early gene promoter. COS-1 cells
transformed with this plasmid vector (**JE-4B** clone)
secreted **JEV**-specific extracellular particles (EPs) into
the culture media. Groups of outbred ICR mice were given one or two
doses of recombinant plasmid DNA or two doses of the commercial
vaccine JEVAX. All mice that received one or two doses of
DNA **vaccine** maintained **JEV**-specific antibodies
18 months after initial **immunization**. **JEVAX** induced 100%
seroconversion in 3-week-old mice; however, none of the 3-day-old
mice had enzyme-linked immunosorbent assay titers higher than 1:400.
Female mice **immunized** with this DNA **vaccine**
developed plaque reduction neutralization antibody titers of between
1:20 and 1:160 and provided 45 to 100% passive protection to their
progeny following intraperitoneal challenge with 5,000 PFU of
virulent **JEV** strain SA14. Seven-week-old adult mice that
had received a single dose of **JEV** DNA **vaccine**
when 3 days of age were completely protected from a 50, 000-PFU
JEV intraperitoneal challenge. These results demonstrate
that a recombinant plasmid DNA which produced **JEV** EPs in
vitro is an effective **vaccine**.

L8 ANSWER 5 OF 42 SCISEARCH COPYRIGHT 2000 ISI (R)

ACCESSION NUMBER: 2000:684479 SCISEARCH

THE GENUINE ARTICLE: 350RL

TITLE: Dengue NS1-specific antibody responses: Isotype
distribution and serotyping in patients with dengue
fever and dengue hemorrhagic fever

AUTHOR: Shu P Y; Chen L K; Chang S F; Yueh Y Y; Chow L;
Chien L J; Chin C; Lin T H; Huang J H (Reprint)

CORPORATE SOURCE: CTR DIS CONTROL, DIV VECTOR BORNE INFECT DIS, DEPT
HLTH, 161 KUN YANG ST, NAN KANG DIST, TAIPEI 115,
TAIWAN (Reprint); CTR DIS CONTROL, DIV VECTOR BORNE
INFECT DIS, DEPT HLTH, TAIPEI 115, TAIWAN; TZU CHI
Searcher : Shears 308-4994

COLL MED, DEPT EMERGENCY MED, HUALIEN, TAIWAN; NATL
 DEF MED CTR, GRAD INST LIFE SCI, TAIPEI, TAIWAN
 COUNTRY OF AUTHOR: TAIWAN
 SOURCE: JOURNAL OF MEDICAL VIROLOGY, (OCT 2000) Vol. 62, No.
 2, pp. 224-232.
 Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC,
 605 THIRD AVE, NEW YORK, NY 10158-0012.
 ISSN: 0146-6615.
 DOCUMENT TYPE: Article; Journal
 FILE SEGMENT: LIFE; CLIN
 LANGUAGE: English
 REFERENCE COUNT: 38

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB To understand the antibody responses to dengue (DEN) nonstructural 1 (NS1) glycoprotein and their roles in protective immunity or pathogenesis of dengue fever (DF) and dengue hemorrhagic fever (DHF), we have analyzed the NS1-specific IgM, IgA and IgG antibodies from patients with DF and DHF. An isotype-specific, indirect enzyme-linked immunosorbent assay (ELISA) was established by coating a NS1-specific monoclonal antibody (MAb), D2/8-1, to capture soluble NS1 antigens secreted in the culture supernatants of Vero cells infected with DEN virus. We observed strong anti-NS1 antibody responses in all of the convalescent sera of patients with DF and DHF. Similar NS1-specific isotypic and serotypic antibody responses were found in the sera from DF and DHF patients. The results showed that all DEN infections induced significant NS1-specific IgG, whereas 75% and 60% of primary DF patients vs. 40% and 90% of secondary DF patients produced IgM and IgA antibodies, respectively. Specificity analysis showed that DEN NS1-specific IgG and IgA antibodies cross-react strongly to Japanese encephalitis (JE) virus NS1 glycoprotein, whereas DEN NS1-specific IgM antibodies do not crossreact to JE virus NS1 glycoprotein at all. The serotype specificity of NS1-specific ISM, IgA and IgG were found to be 80%, 67% and 75% for primary infections, and 50%, 22% and 30% for secondary infections in positive samples of DF patients. Similar pattern was found in DHF patients. The results showed that all of the DF and DHF patients produced significant NS1-specific antibodies. We did not observe direct correlation between the anti-NS1 antibody responses and DHF because sera from patients with DF and DHF showed similar anti- NS1 antibody responses. (C) 2000 Wiley-Liss, Inc.

L8 ANSWER 6 OF 42 COPYRIGHT 2000 PJB

ACCESSION NUMBER: 1999:16407 PHIN
 DOCUMENT NUMBER: P00636970
 DATA ENTRY DATE: 24 Sep 1999
 TITLE: Nipah 101

Searcher : Shears 308-4994

09/486392

SOURCE: Animal-Pharm (1999) No. 429 p15
DOCUMENT TYPE: Newsletter
FILE SEGMENT: FULL

L8 ANSWER 7 OF 42 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1999-243619 [20] WPIDS
DOC. NO. CPI: C1999-071001
TITLE: Attenuated **Japanese encephalitis**

DERWENT CLASS: B04 D16
INVENTOR(S): BINN, L N; CHUNG, Y J; DUBOIS, D R; ECKELS, K H;
HONG, S P; INNIS, B; KIM, H S; KIM, S O; LEE, S H;
MOON, S B; PUTNAK, J R; SHIN, Y C; SRIVASTAVA, A K;
YOO, W D

PATENT ASSIGNEE(S): (CHEI-N) CHEIL JEDANG CORP; (REED-N) REED ARMY INST
RES WALTER; (CHEI-N) CHEIL JEDANG CO; (CHEI-N)
CHEIL FOODS & CHEM INC

COUNTRY COUNT: 83

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 9911762	A1	19990311	(199920)*	EN	34
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW NL OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI					
GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT					
LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL					
TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9890047	A	19990322	(199931)		
KR 99023955	A	19990325	(200024)		
EP 1025209	A1	20000809	(200039)	EN	
R: BE CH DE DK ES FR GB IT LI NL					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 9911762	A1	WO 1998-KR259	19980825
AU 9890047	A	AU 1998-90047	19980825
KR 99023955	A	KR 1998-35007	19980827
EP 1025209	A1	EP 1998-941885	19980825
		WO 1998-KR259	19980825

FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 9890047	A Based on	WO 9911762
	Searcher	: Shears 308-4994

09/486392

EP 1025209 A1 Based on WO 9911762

PRIORITY APPLN. INFO: KR 1997-42002 19970828; KR 1997-42001
19970828

AN 1999-243619 [20] WPIDS

AB WO 9911762 A UPAB: 19990525

NOVELTY - Attenuated **Japanese encephalitis** (**JE**) virus adapted to **Vero** cells by passages on **Vero** cells, is new.

ACTIVITY - Immunostimulant.

The immunogenicity of JE **CJ50003** purified, inactivated virus (PIV) was tested in 6-week old Balb/c mice. The mice were **immunized** subcutaneously with 500, 50 or 5 ng of PIV either in saline or saline with aluminum hydroxide. Mice received two inoculations spaced 3 weeks apart. Sera from each group were tested at 3 weeks after the second **immunization**, and tested for the presence of neutralizing antibodies with mouse brain passaged Nakayana strain as neutralized virus. PIV produced neutralizing antibody titers of 1:160 (at 500 ng), 1:40 (at 50 ng) and 1:20 (at 5 ng). PIV was better than Biken **vaccine** at all doses.

MECHANISM OF ACTION - None given.

USE - The **Japanese encephalitis** virus is useful for production of **Japanese encephalitis vaccines**.

ADVANTAGE - The **Japanese encephalitis** virus is produced in a standard cell substrate, thus improving its acceptability in many countries. The multiple harvesting process is responsible for the reduced degree of cytopathic effect of infected cells.

Dwg.0/4

L8 ANSWER 8 OF 42 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

ACCESSION NUMBER: 1999-543329 [46] WPIDS

DOC. NO. CPI: C1999-158762

TITLE: Albumin-free medium for propagating and multiplying viruses in cultured cells, especially for **vaccine** production.

DERWENT CLASS: B04 D16

INVENTOR(S): HEIMINDINGER, P

PATENT ASSIGNEE(S): (INMR) PASTEUR MERIEUX SERUMS & VACCINS SA;
(MERI-N) MERIAL SAS

COUNTRY COUNT: 84

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
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FR 2775983	A1	19990917	(199946)*		12
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WO 9947648	A2	19990923	(199947)	FR	
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Searcher : Shears 308-4994

09/486392

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC
MW NL OA PT SD SE SL SZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI
SK SL TJ TM TR TT UA UG US UZ VN YU ZW
AU 9927352 A 19991011 (200008)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
FR 2775983	A1	FR 1998-3333	19980313
WO 9947648	A2	WO 1999-FR578	19990315
AU 9927352	A	AU 1999-27352	19990315

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9927352	A Based on	WO 9947648

PRIORITY APPLN. INFO: FR 1998-3333 19980313

AN 1999-543329 [46] WPIDS

AB FR 2775983 A UPAB: 19991122

NOVELTY - Medium for propagating and multiplying viruses in cultured cells is free of human, animal or recombinant albumin and contains mitogenic potato or cucumber proteins or glycoproteins with molecular weights of 10-200 kD.

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - For vaccine production, preferably by propagating and multiplying **Japanese encephalitis**, rabies, poliomyelitis, hepatitis A, influenza, Dengue fever, measles, mumps, chickenpox or rubella virus in **Vero** cell cultures, especially for producing a human vaccine against **Japanese encephalitis**.

ADVANTAGE - The medium avoids the disease transmission risks associated with albumin-containing media while still provided industrially acceptable virus yields.

Dwg.0/0

L8 ANSWER 9 OF 42 TOXLIT

ACCESSION NUMBER: 1999:6566 TOXLIT

DOCUMENT NUMBER: CA-130-213608U

TITLE: An attenuated **Japanese encephalitis** virus adapted to **Vero** cell and a **Japanese encephalitis** vaccine.

Searcher : Shears 308-4994

AUTHOR: Kim HS; Yoo WD; Kim SO; Lee SH; Moon SB; Hong SP;
Shin YC; Chung YJ; Eckels KH; et al.
SOURCE: (1999). PCT Int. Appl. PATENT NO. 9911762 03/11/1999
(Walter Reed Army Institute of Research).
CODEN: PIXXD2.
PUB. COUNTRY: KOREA, REPUBLIC OF
DOCUMENT TYPE: Patent
FILE SEGMENT: CA
LANGUAGE: English
OTHER SOURCE: CA 130:213608
ENTRY MONTH: 199904

AB SThe present invention relates to an attenuated **Japanese encephalitis** virus adapted to **Vero** cell by passages on **Vero** cell and a **Japanese encephalitis vaccine** comprising said attenuated virus. **Japanese encephalitis** virus adapted to **Vero** cell after 4 passage was used for prepn. of a **vaccine**. The titer of neutralizing antibodies (the reciprocal of serum diln. resulting in 50% redn. of mouse brain passaged Nakayama virus plaques) for both purified, inactivated virus (PIV) and live, attenuated virus in mice at a dose of 5 .mu.g was 1:320. Mice were **immunized** with 2 inoculations of test **vaccines** (comprising PIV) spaced 3 wk apart, then challenged with 500 pfu of mouse-neurovirulent Nakayama virus. Mice **immunized** with 500 ng of PIV or 50 ng PIV and alum showed 100% protection.

L8 ANSWER 10 OF 42 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 1999231936 MEDLINE
DOCUMENT NUMBER: 99231936
TITLE: Recombinant, chimaeric live, attenuated **vaccine** (ChimeriVax) incorporating the envelope genes of **Japanese encephalitis** (SA14-14-2) virus and the capsid and nonstructural genes of yellow fever (17D) virus is safe, immunogenic and protective in non-human primates.
AUTHOR: Monath T P; Soike K; Levenbook I; Zhang Z X; Arroyo J; Delagrave S; Myers G; Barrett A D; Shope R E; Ratterree M; Chambers T J; Guirakhoo F
CORPORATE SOURCE: OraVax Inc., Cambridge, MA 02139, USA..
tmonath@oravax.com
SOURCE: VACCINE, (1999 Apr 9) 17 (15-16) 1869-82.
Journal code: X60. ISSN: 0264-410X.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199909

Searcher : Shears 308-4994

ENTRY WEEK: 19990902

AB Yellow fever 17D virus, a safe and effective live, attenuated **vaccine**, was used as a vector for genes encoding the protective antigenic determinants of a heterologous member of the genus *Flavivirus*, **Japanese encephalitis (JE)** virus, the leading cause of acute viral central nervous system infection and death throughout Asia. The viral envelope (prM and E) genes of a full-length cDNA clone of YF 17D virus were replaced with the corresponding genes of **JE SA14-14-2**, a strain licensed as a live, attenuated **vaccine** in China. Full-length RNA transcripts of the YF/**JE** chimaera were used to transfect **Vero** cells. The progeny virus (named 'ChimeriVax-**JE**'), was used to define safety after intracerebral (i.c.) inoculation of rhesus monkeys. Monkeys (N = 3) inoculated with a high dose (6.6 log₁₀ pfu) developed a brief viremia, showed no signs of illness, developed high titers of anti-**JE** neutralizing antibody, and had minimal brain and spinal cord lesion scores according to criteria specified in the WHO monkey neurovirulence test. A control group of 3 monkeys that received a lower dose (4.2 log₁₀ pfu) of commercial YF 17D **vaccine** had slightly higher lesion scores. To develop a lethal monkey model of **JE** for **vaccine** protection tests, we inoculated groups of monkeys i.c. or intranasally (i.n.) with a **JE** virus strain found to be highly neurovirulent and neuroinvasive for mice. Monkeys inoculated i.c., but not i.n., developed severe **encephalitis** after an incubation period of 8-13 days. The ChimeriVax-**JE** virus was passed in a cell line acceptable for human use (diploid fetal rhesus lung) and 4.3 or 5.3 log₁₀ pfu were inoculated into groups of 3 monkeys by the subcutaneous route. All 6 animals developed brief viremias (peak titer < 2.0 log₁₀ pfu/ml) and subsequently had anti-**JE** but no yellow fever neutralizing antibodies. On day 64, the monkeys were challenged i.c. with 5.5 log₁₀ pfu of virulent **JE** virus. The **immunized** animals had no detectable viremia post-challenge, whereas 4 unimmunized controls became viremic. Only 1 of 6 (17%) **vaccinated** monkeys but 4 of 4 (100%) unvaccinated controls developed **encephalitis**. Histopathological examination 30 days after challenge confirmed that the protected, **immunized** animals had no or minimal evidence of **encephalitis**. These data demonstrated the ability of the ChimeriVax-**JE** to induce a rapid humoral immune response and to protect against a very severe, direct intracerebral virus challenge. Target areas of neuronal damage and inflammation in monkeys infected IC with wild-type **JE**, the chimaeric virus and YF 17D were similar, indicating that the histopathological scoring system used for the WHO yellow fever monkey neurovirulence test will be applicable to control testing of chimaeric seed viruses and **vaccines**.

L8 ANSWER 11 OF 42 MEDLINE

ACCESSION NUMBER: 1999263164 MEDLINE

DOCUMENT NUMBER: 99263164

TITLE: Immunogenicity, genetic stability, and protective efficacy of a recombinant, chimeric yellow fever-
Japanese encephalitis virus
(ChimeriVax-JE) as a live, attenuated
vaccine candidate against Japanese encephalitis.

AUTHOR: Guirakhoo F; Zhang Z X; Chambers T J; Delagrave S; Arroyo J; Barrett A D; Monath T P

CORPORATE SOURCE: OraVax, Inc., 38 Sidney Street, Cambridge, Massachusetts 02139, USA.. fguirakh@oravax.com

CONTRACT NUMBER: AI36798-03 (NIAID)

SOURCE: VIROLOGY, (1999 May 10) 257 (2) 363-72.
Journal code: XEA. ISSN: 0042-6822.

PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals; Cancer Journals

ENTRY MONTH: 199908

ENTRY WEEK: 19990803

AB Yellow fever (YF) 17D **vaccine virus**, having a 60-year history of safe and effective use, is an ideal vector to deliver heterologous genes from other medically important flaviviruses. A chimeric YF/**Japanese encephalitis (JE)** virus (ChimeriVax-JE virus) was constructed by insertion of the premembrane and envelope (prME) genes of an attenuated human **vaccine strain (SA14-14-2) of Japanese encephalitis (JE) virus** between core and nonstructural (NS) genes of a YF 17D infectious clone. The virus grew to high titers in cell cultures and was not neurovirulent for 3- to 4-week-old mice at doses ≤ 6 log₁₀ plaque forming units (pfu) inoculated by the intracerebral (IC) route. In contrast, commercial YF 17D **vaccine** was highly neurovirulent for weanling mice by the same route. Mice inoculated subcutaneously with one dose of $\geq 10(3)$ pfu of ChimeriVax-JE virus were solidly protected against intraperitoneal challenge with a virulent JE virus. Genetic stability of the chimera was assessed by sequential passages in cell cultures or in mouse brain. All attenuating residues and the avirulent phenotype were preserved after 18 passages in cell cultures or 6 passages in mouse brains. Copyright 1999 Academic Press.

L8 ANSWER 12 OF 42 EMBASE COPYRIGHT 2000 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 1999282891 EMBASE

TITLE: **Japanese encephalitis**

vaccine (inactivated, BIKEN) in U.S.

Soldiers: Immunogenicity and safety of

Searcher : Shears 308-4994

vaccine administered in two dosing regimens.

AUTHOR: Defraites R.E.; Gambel J.M.; Hoke C.H. Jr.; Sanchez J.L.; Withers B.G.; Karabatsos N.; Shope R.E.; Tirrell S.; Yoshida I.; Takagi M.; Meschievitz C.K.; Tsai T.F.

CORPORATE SOURCE: R.E. Defraites, U.S. Army Ctr. for Health.Promotion, 5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010, United States

SOURCE: American Journal of Tropical Medicine and Hygiene, (1999) 61/2 (288-293).
Refs: 21
ISSN: 0002-9637 CODEN: AJTHAB

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
038 Adverse Reactions Titles

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The safety and immunogenicity of **Japanese encephalitis (JE) vaccine** (Nakayama strain, monovalent/BIKEN) was studied in 538 U.S. soldiers in 1990. Three doses of **vaccine** from three consecutively manufactured lots were given on days 0, 7, and either 14 or 30. Serum for antibody determination was drawn at months 0, 2, and 6. **Japanese encephalitis** plaque reduction neutralization tests were performed by three laboratories on each specimen. Five hundred twenty-eight (98%) participants completed the **immunization** series. All recipients without antibody before **immunization** developed neutralizing antibody against **JE** virus. There were no differences in geometric mean titer among the three test lots at months 2 and 6. Soldiers who received the third dose on day 30 had higher titers at both time points. Antibody to yellow fever had no significant effect on immune response to **vaccine**. Conclusions drawn from analysis of serologic data from the three labs were nearly identical. Symptoms were generally limited to mild local effects and were reduced in frequency with each subsequent does in the series (21% to 11%; $P < 0.0001$). Generalized symptoms were rare (e.g., fever = 5%) with no reported cases of anaphylaxis.

L8 ANSWER 13 OF 42 MEDLINE

DUPLICATE 2

ACCESSION NUMBER: 1999429344 MEDLINE

DOCUMENT NUMBER: 99429344

TITLE: **Immunization** with plasmid DNA encoding the envelope glycoprotein of **Japanese Encephalitis** virus confers significant protection against intracerebral viral challenge
Searcher : Shears 308-4994

without inducing detectable antiviral antibodies.

AUTHOR: Ashok M S; Rangarajan P N

CORPORATE SOURCE: Department of Biochemistry, Indian Institute of Science, Bangalore.

SOURCE: VACCINE, (1999 Aug 20) 18 (1-2) 68-75.
Journal code: X60. ISSN: 0264-410X.

PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200001

ENTRY WEEK: 20000104

AB A plasmid DNA construct, pCMXENV encoding the envelope (E) glycoprotein of **Japanese Encephalitis** virus (**JEV**), was constructed. This plasmid expresses the E protein intracellularly, when transfected into **Vero** cells in culture. The ability of pCMXENV to protect mice from lethal **JEV** infection was evaluated using an intracerebral (i.c.) **JEV** challenge model. Several independent **immunization** and **JEV** challenge experiments were carried out and the results indicate that 51 and 59% of the mice are protected from lethal i.c. **JEV** challenge, when **immunized** with pCMXENV via intramuscular (i.m.) and intranasal (i.n.) routes respectively. None of the mice **immunized** with the vector DNA (pCMX) survived in any of these experiments. **JEV**-specific antibodies were not detected in pCMXENV-**immunized** mice either before or after challenge. **JEV**-specific T cells were observed in mice **immunized** with pCMXENV which increased significantly after **JEV** challenge indicating the presence of **vaccination**-induced memory T cells. Enhanced production of interferon-gamma (IFN-gamma) and complete absence of interleukin-4 (IL-4) in splenocytes of pCMXENV-**immunized** mice on restimulation with **JEV** antigens in vitro indicated that the protection is likely to be mediated by T helper (Th) lymphocytes of the Th1 sub-type. In conclusion, our results demonstrate that **immunization** with a plasmid DNA expressing an intracellular form of **JEV** E protein confers significant protection against i.c. **JEV** challenge even in the absence of detectable antiviral antibodies.

L8 ANSWER 14 OF 42 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 3

ACCESSION NUMBER: 1999:43363 BIOSIS

DOCUMENT NUMBER: PREV199900043363

TITLE: Comparisons of microcarrier cell culture processes in one hundred mini-liter spinner flask and fifteen-liter bioreactor cultures.

AUTHOR(S): Wu, Suh-Chin (1); Hsieh, Wen-Chin; Liao, Ming-Yi

CORPORATE SOURCE: (1) Dep. Life Sci., Natl. Tsing Hua Univ., Hsinchu

Searcher : Shears 308-4994

SOURCE: Taiwan
Bioprocess Engineering, (Dec., 1998) Vol. 19, No. 6,
pp. 431-434.
ISSN: 0178-515X.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Microcarrier cell culture process can be used to culture anchorage-dependent cells in large bioreactor vessels. The process performance in large bioreactors is usually less prominent than that in spinner flask vessels and bench scale reactors. In this study we investigated the microcarrier cell culture processes in 100 ml spinner flask and 15-liter bioreactor cultures, including the kinetics for cell attachment, cell growth and the production of **Japanese encephalitis vaccine strain** (Beijing-1) virus. Under a fixed concentration of microcarrier and cell density used in inoculations, the attachment kinetics of **Vero** cells on Cytodex 1 microcarrier in a 15-liter bioreactor vessel was 2 folds slower than with 100 ml spinner flask culture. Virus replication in 15-liter bioreactor culture also revealed an approximately one day lag-time compared to 100 ml spinner flask culture. Findings presented herein provide valuable information for designing and operating microcarrier cell culture processes in large bioreactor vessels.

L8 ANSWER 15 OF 42 BIOSIS COPYRIGHT 2000 BIOSIS

ACCESSION NUMBER: 1998:261769 BIOSIS

DOCUMENT NUMBER: PREV199800261769

TITLE: Neutralizing mechanism of a monoclonal antibody against **Japanese encephalitis** virus glycoprotein E.

AUTHOR(S): Butrapet, Siritorn; Kimura-Kuroda, Junko; Zhou, De-Shan; Yasui, Kotaro

CORPORATE SOURCE: Dep. Microbiol. Immunol., Tokyo Metropolitan Inst. Neurosci., Fuchu-City, Tokyo Japan

SOURCE: American Journal of Tropical Medicine and Hygiene, (April, 1998) Vol. 58, No. 4, pp. 389-398.
ISSN: 0002-9637.

DOCUMENT TYPE: Article

LANGUAGE: English

AB The neutralization of **Japanese encephalitis** virus (**JEV**) was studied using **JEV**-specific neutralizing (NT) monoclonal antibody (MAb) 503 that recognizes the envelope glycoprotein. Analysis using radiolabeled **JEV** and observations by confocal laser microscopy and electron microscopy indicated that the NT and protection activities of MAb 503 did not result from the prevention of the first step of **JEV** infection, binding of virus to the cell surface. Treatment with MAb 503 strongly inhibited **JEV**-induced cell fusion and internalization of **JEV** into the cells, and resulted in

Searcher : Shears 308-4994

enhanced release of **JEV**-RNA from the cells. These observations suggested that the NT activity of MAb 503 is involved in the later steps of **JEV** infection.

L8 ANSWER 16 OF 42 JICST-EPlus COPYRIGHT 2000 JST

ACCESSION NUMBER: 990184387 JICST-EPlus

TITLE: Development of an inactivated **Japanese encephalitis vaccine** by utilizing a continuous cell line.

AUTHOR: ISHIKAWA TOYOKAZU; YOSHII HIRONORI; ONISHI TOSHIYUKI; ISHIBASHI MASAHIDE; IMAGAWA TADASHI

CORPORATE SOURCE: Res. Found. for Microb. Dis. of Osaka Univ.

SOURCE: Rinsho to Uirusu (Clinical Virology), (1998) vol. 26, no. 5, pp. 340-350. Journal Code: Z0316B
ISSN: 0303-8092

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article

LANGUAGE: Japanese

STATUS: New

L8 ANSWER 17 OF 42 MEDLINE

ACCESSION NUMBER: 1998206488 MEDLINE

DOCUMENT NUMBER: 98206488

TITLE: **Japanese encephalitis** among hospitalized pediatric and adult patients with acute encephalitis syndrome in Hanoi, Vietnam 1995.

AUTHOR: Lowry P W; Truong D H; Hinh L D; Ladinsky J L; Karabatsos N; Cropp C B; Martin D; Gubler D J

CORPORATE SOURCE: Division of Epidemiology, School of Public Health, University of Minnesota, Minneapolis, USA.

SOURCE: AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE, (1998 Mar) 58 (3) 324-9.
Journal code: 3ZQ. ISSN: 0002-9637.

PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 199806

ENTRY WEEK: 19980603

AB The etiologic spectrum of acute **encephalitis** syndrome (AES) has not been well defined in Vietnam. Cohort and case-control studies were performed on all adult and pediatric AES patients admitted to the Neurology Service of Bach Mai Hospital between June 5 and August 3, 1995. Among pediatric AES patients, 31 (67%) of 46 had acute **Japanese encephalitis (JE)**, compared with only two (6%) of 33 adult AES patients ($P < 0.0001$). For confirmed **JE** cases, serum specimens obtained 15-21 days after symptom onset had the highest mean anti-**JE** IgM signal-to-noise (P/N) ratios (8.08 ± 1.09 SE). A serosurvey of adult

Searcher : Shears 308-4994

household members did not reveal any cases of recent subclinical **JE** infection, although 26% had evidence of past **JE** infection. The use of bed netting was nearly universal but did not appear to reduce the risk of AES or **JE**. Given the high incidence of **JE**, particularly among children, Vietnam seems well suited for the development of a targeted **JE** vaccination strategy.

L8 ANSWER 18 OF 42 MEDLINE

ACCESSION NUMBER: 1998079002 MEDLINE

DOCUMENT NUMBER: 98079002

TITLE: Immunogenicity of live attenuated SA14-14-2
Japanese encephalitis
vaccine--a comparison of 1- and 3-month
immunization schedules.

AUTHOR: Tsai T F; Yu Y X; Jia L L; Putvatana R; Zhang R; Wang S; Halstead S B

CORPORATE SOURCE: Division of Vector-Borne Infectious Diseases,
National Center for Infectious Diseases, Centers for
Disease Control and Prevention, Ft. Collins,
Colorado, USA.

SOURCE: JOURNAL OF INFECTIOUS DISEASES, (1998 Jan) 177 (1)
221-3.

Journal code: IH3. ISSN: 0022-1899.

PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 199803

ENTRY WEEK: 19980305

AB Live attenuated SA14-14-2 **Japanese encephalitis**
(**JE**) **vaccine** has been safe and effective in >100
million **immunized** children, but its current administration
schedule of two doses given a year apart does not lend itself to
inclusion in established Expanded Program of **Immunization**
(EPI) schedules of childhood **immunization**. Immune
responses to **immunization** at shorter intervals were
compared in middle-school-aged children **immunized** with two
doses separated by 1 month (n = 116) or 2.5 months (n = 115). Two
vaccine lots were compared. Seroconversion to the
vaccine was observed in 100% of **vaccinees**
immunized in the 1-month schedule and in 94% (lot 2) and
100% (lot 1) of **vaccinees immunized** in the
2.5-month schedule. Geometric mean titers were almost 2-fold higher
with the longer schedule. The routine administration of **JE**
SA14-14-2 **vaccine** to infants in an EPI schedule should be
possible using either interval.

L8 ANSWER 19 OF 42 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 4

Searcher : Shears 308-4994

09/486392

ACCESSION NUMBER: 1999:74172 BIOSIS
DOCUMENT NUMBER: PREV199900074172
TITLE: Large-scale purification of inactivated
Japanese encephalitis
vaccine from vero cells by zonal
centrifugation.
AUTHOR(S): Shi, Huiying; Ding, Zhifen; Zhao, Min; et al.
CORPORATE SOURCE: Natl. Vaccine and Serum Inst., Beijing 100024 China
SOURCE: Virologica Sinica, (Sept., 1998) Vol. 13, No. 3, pp.
208-213.
ISSN: 1003-5125.
DOCUMENT TYPE: Article
LANGUAGE: Chinese
SUMMARY LANGUAGE: Chinese; English

AB **Japanese Encephalitis (JE)**
Vaccine in Vero cell can be easily purified by
zonal centrifugation at non-continuous sucrose gradients (36% and
60%), 32 600 g for 4 h. The calf serum protein and other nonviral
proteins in the vaccine were almost separated from the
JE virus. The residual calf serum protein was less than 0.5
mug/mL, and the total protein was less than 30 mug/mL. The residual
Vero cell DNA in the vaccine was less than 100
pg/0.5 mL. The titer of purified Japanese
Encephalitis vaccine is six times higher than
China control vaccine. This method is recommended as an
available method to purify JE vaccine from
Vero cell in large-scale because it is simple, rapid and
inexpensive.

L8 ANSWER 20 OF 42 SCISEARCH COPYRIGHT 2000 ISI (R)
ACCESSION NUMBER: 1998:783801 SCISEARCH
THE GENUINE ARTICLE: 126QE
TITLE: Characterization of an attenuated **Japanese**
encephalitis virus adapted to African green
monkey kidney cells, Vero
AUTHOR: Chung Y J (Reprint); Hong S P; Moon S B; Shin Y C;
Kim S O
CORPORATE SOURCE: CHEILJEDANG CORP, R&D CTR, INCHON 467810, SOUTH
KOREA
COUNTRY OF AUTHOR: SOUTH KOREA
SOURCE: JOURNAL OF MICROBIOLOGY, (SEP 1998) Vol. 36, No. 3,
pp. 189-195.
Publisher: MICROBIOLOGY SOC KOREA, KOREA SCIENCE &
TECHNOLOGY CENTER 803, 635-4 YEOGSAM-DONG,
KANGNAM-KU, SEOUL 135-703, SOUTH KOREA.
ISSN: 1225-8873.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 20

Searcher : Shears 308-4994

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Live attenuated **Japanese encephalitis** (**JE**) virus SA14-14-2 produced in primary dog kidney cells (PDR) was adapted to African green monkey kidney cells, **Vero**. In an effort to gain insight into the molecular basis of the biological characteristics of the isolated SA14-14-2 (**Vero**) strain, the 1,500 nucleotide sequence encoding the envelope (E) gene which possesses major neutralizing epitopes was determined and compared with the sequences of two other attenuated **JE** virus strains, SA14-14-2 (PHK) and SA14-14-2 (PDK). The amino acid sequence of the C-terminal region (a.a. 280-500) of the SA14-14-2 (**Vero**) E gene was found to be identical to those of strains SA14-14-2 (PHK) and SA14-14-2 (PDK), while the N-terminal region (a.a. 1-279) showed sequence variation. The distribution of mutations in the N-terminal region was nearly the same among the three attenuated strains, suggesting that the N-terminal sequences might be related with virus-host cell specificity. However, it was found that Lys and Val (a.a.138 and 176, respectively), known to be responsible for attenuation, are still conserved in SA14-14-2 (**Vero**). Animal testing showed that SA14-14-2 (**Vero**) has a neurovirulence phenotype similar to that of the parent SA14-14-2 (PDK) strain in suckling mice. The SA14-14-2 (**Vero**) grew very efficiently in **Vero** cells enough to support vaccine production. The growth characteristics of SA14-14-2 (**Vero**) in **Vero** cell and conservation of attenuation determinant of neurovirulence support that SA14-14-2 (**Vero**) could be developed as a new vaccine strain for human use.

L8 ANSWER 21 OF 42 MEDLINE

DUPLICATE 5

ACCESSION NUMBER: 1998376359 MEDLINE

DOCUMENT NUMBER: 98376359

TITLE: Antigenic characterization of nine wild-type Taiwanese isolates of **Japanese encephalitis** virus as compared with two vaccine strains.

AUTHOR: Wu S C; Lian W C; Hsu L C; Wu Y C; Liao M Y

CORPORATE SOURCE: Department of Life Science, National Tsing Hua University, Hsinchu, Taiwan.. scwu@life.nthu.edu.tw

SOURCE: VIRUS RESEARCH, (1998 May) 55 (1) 83-91.

Journal code: X98. ISSN: 0168-1702.

PUB. COUNTRY: Netherlands

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

OTHER SOURCE: GENBANK-AF030549; GENBANK-AF030550

ENTRY MONTH: 199812

AB The antigenic properties of nine wild-type **Japanese encephalitis** viruses isolated in Taiwan during 1990 1994

Searcher : Shears 308-4994

were investigated by comparison with two inactivated **vaccine** strains (Beijing-1, Nakayama-NIH). All of the nine Taiwanese isolates were found to induce higher cytopathology in **Vero** cells but showed similar mouse virulence as the two **vaccine** strains. Antigenic characterization using six E protein-specific monoclonal antibodies shows two of the nine wild-type isolates (i.e. CH1949 and CH2195) presented different antigenic properties of hemagglutination inhibition and plaque reduction neutralization. The E-protein gene nucleotide sequences of CH1949 and CH2195 were determined and compared with other published sequences of the two **vaccine** strains and other 19 Asian/Taiwanese isolates. Phylogenetic tree analysis indicates these two wild-type Taiwanese isolates are more distant from the two **vaccine** strains.

L8 ANSWER 22 OF 42 MEDLINE DUPLICATE 6
 ACCESSION NUMBER: 1998156785 MEDLINE
 DOCUMENT NUMBER: 98156785
 TITLE: Inhibitory effect of furanonaphthoquinone derivatives on the replication of **Japanese encephalitis** virus.
 AUTHOR: Takegami T; Simamura E; Hirai K; Koyama J
 CORPORATE SOURCE: Medical Research Institute Kanazawa Medical University, Uchinada, Ishikawa, Japan.
 SOURCE: ANTIVIRAL RESEARCH, (1998 Jan) 37 (1) 37-45.
 Journal code: 6I7. ISSN: 0166-3542.
 PUB. COUNTRY: Netherlands
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199806
 ENTRY WEEK: 19980603

AB **Japanese encephalitis** still occurs in endemic and epidemic forms over a wide area of Asia. Although the **vaccine** against **Japanese encephalitis** virus (**JEV**) is widely used, no antiviral drug has been reported. We used several different kinds of furanonaphthoquinone derivatives and found antiviral activity against **JEV**. Especially, 2-methylnaphtho[2,3-b]furan-4,9-dione (FNQ3) indicated the highest antiviral activity, followed by 2-(1-hydroxyethyl)-, 5(or 8)-hydroxy-, and 2-methyl-5(or 8)-hydroxy-analogs of naphtho[2,3-b]furan-4,9-dione. In the presence of 3 microg/ml FNQ3, the virus yields in **Vero** cells were 2×10^5 PFU/ml at 24 h after infecting with the virus and 10% of the control level. Western blot analysis using anti-E rabbit sera or anti-NS3 showed that the expression of viral proteins was inhibited by treatment with FNQ3. In addition, Northern blot analysis indicated that the appearance of **JEV**-RNA was also inhibited by FNQ3. These results suggest that FNQ3 inhibits **JEV** replication through viral RNA and protein synthesis.

Searcher : Shears 308-4994

L8 ANSWER 23 OF 42 MEDLINE DUPLICATE 7
 ACCESSION NUMBER: 1998122988 MEDLINE
 DOCUMENT NUMBER: 98122988
 TITLE: Attenuation of **Japanese encephalitis** virus by selection of its mouse brain membrane receptor preparation escape variants.
 AUTHOR: Ni H; Barrett A D
 CORPORATE SOURCE: Department of Pathology and Center for Tropical Diseases, University of Texas Medical Branch, Galveston, Texas, 77555-0609, USA.
 SOURCE: VIROLOGY, (1998 Feb 1) 241 (1) 30-6.
 Journal code: XEA. ISSN: 0042-6822.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals; Cancer Journals
 OTHER SOURCE: GENBANK-AF036914; GENBANK-AF036915; GENBANK-AF036916;
 GENBANK-AF036917; GENBANK-AF036918; GENBANK-AF036919
 ENTRY MONTH: 199804
 ENTRY WEEK: 19980404

AB Six variants of **Japanese encephalitis** (**JE**) virus strain P3 were selected for resistance to binding to mouse brain membrane receptor preparations (MRP). All but one of these MRP escape (MRPR) variants were significantly attenuated in mice for both neuroinvasiveness (>200-fold) and neurovirulence (>500-fold) compared to their parent virus. Attenuated mouse brain MRPR variants could be detected in the sera of mice following either intracerebral (i.c.) or intraperitoneal inoculation, whereas virus was detected only in brains of mice following ic inoculation. **Immunization** of mice with MRPRs induced neutralizing antibodies and protected mice against challenge with wild-type **JE** virus. A common amino acid mutation was found in the envelope (E) protein gene of all attenuated mouse brain MRPR variants at residue E-306 compared to P3 virus grown in mosquito C6-36 cells or plaque purified and amplified in monkey kidney **Vero** cells. This amino acid is putatively responsible for attenuation due to alteration in binding of **JE** virus to its cell receptor in mouse brain. The methodology developed in this study has general applicability to the attenuation of virulence of viruses and to the identification of agents that will block amino acids in a viral attachment protein(s) that interacts with cell receptors. Copyright 1998 Academic Press.

L8 ANSWER 24 OF 42 JICST-EPlus COPYRIGHT 2000 JST
 ACCESSION NUMBER: 990722942 JICST-EPlus
 TITLE: The development of inactivated **Japanese encephalitis** vaccine by the subculture cell. (Ministry of Health and Welfare S).
 Searcher : Shears 308-4994

AUTHOR: ISHIKAWA TOYOKAZU; YOSHII HIRONORI; ONISHI TOSHIYUKI;
IMAGAWA TADASHI; TAKAMIZAWA AKIHISA
CORPORATE SOURCE: Kanoji Inst., Res. Found. for Microb. Dis. of Osaka
Univ.
SOURCE: Fukatsuka Wakuchin no Kairyo ni kansuru Kenkyu.
Heisei 9 Nendo Kenkyu Hokokusho, (1998) pp. 15-17.
Journal Code: N19991786 (Ref. 3)
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Short Communication
LANGUAGE: Japanese
STATUS: New

L8 ANSWER 25 OF 42 JICST-EPlus COPYRIGHT 2000 JST
ACCESSION NUMBER: 990722939 JICST-EPlus
TITLE: The problem on the quality control of
Japanese encephalitis
vaccine. (Ministry of Health and Welfare S).

AUTHOR: TASHIRO MASATO
CORPORATE SOURCE: National Inst. Infectious Diseases, JPN
SOURCE: Fukatsuka Wakuchin no Kairyo ni kansuru Kenkyu.
Heisei 9 Nendo Kenkyu Hokokusho, (1998) pp. 9-10.
Journal Code: N19991786
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Short Communication
LANGUAGE: Japanese
STATUS: New

L8 ANSWER 26 OF 42 SCISEARCH COPYRIGHT 2000 ISI (R)
ACCESSION NUMBER: 96:893575 SCISEARCH
THE GENUINE ARTICLE: VV272
TITLE: Development of a purified, inactivated, dengue-2
virus **vaccine** prototype in **vero**
cells: Immunogenicity and protection in mice and
rhesus monkeys
AUTHOR: Putnak R; Barvir D A; Burrous J M; Dubois D R;
DAndrea V M; Hoke C H; Sadoff J C; Eckels K H
(Reprint)
CORPORATE SOURCE: WALTER REED ARMY MED CTR, WALTER REED ARMY INST RES,
DEPT BIOL RES, WASHINGTON, DC 20307 (Reprint);
WALTER REED ARMY MED CTR, WALTER REED ARMY INST RES,
DEPT BIOL RES, WASHINGTON, DC 20307; US FDA, DIV
CLIN LAB DEVICES, ROCKVILLE, MD 20857; MERCK RES
LABS, BLUE BELL, PA
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF INFECTIOUS DISEASES, (DEC 1996) Vol. 174,
No. 6, pp. 1176-1184.
Publisher: UNIV CHICAGO PRESS, 5720 S WOODLAWN AVE,
CHICAGO, IL 60637.
ISSN: 0022-1899.

Searcher : Shears 308-4994

09/486392

DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: English
REFERENCE COUNT: 49

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The feasibility of a purified, inactivated dengue (DEN) vaccine made in Vero cells was explored, A DEN-2 virus candidate was chosen for production of a monotypic, purified, inactivated vaccine (PIV), Virus was harvested from roller bottle culture supernatants, concentrated, and purified on sucrose gradients. The purified virus was inactivated with 0.05% formalin at 22 degrees C. After inactivation, the virus retained its antigenicity and was immunogenic in mice and rhesus monkeys, in which it elicited high titers of DEN-2 virus-neutralizing antibody. Mice were completely protected against challenge with live, virulent virus after receiving two 0.15-mu g doses of PIV. Monkeys vaccinated with three doses ranging as low as 0.25 mu g demonstrated complete absence or a significant reduction in the number of days of viremia after challenge with homologous virus. These results warrant further testing and development of PIVs for other DEN virus serotypes.

L8 ANSWER 27 OF 42 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1995-388695 [50] WPIDS
DOC. NO. CPI: C1995-166906
TITLE: Japanese encephalitis virus
antigenic E protein - produced in mammalian cells,
useful as a vaccine or for diagnosis of
Japanese encephalitis virus.
DERWENT CLASS: B04 D16
PATENT ASSIGNEE(S): (TOKT-N) TOKYO TO SHINKEI KAGAKU SOGO KENKYUSHO;
(KAGA) ZH KAGAKU & KESSEI RYOHO KENKYUSHO
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 07265093	A	19951017	(199550)*	EN	15

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 07265093	A	JP 1994-85911	19940330

PRIORITY APPLN. INFO: JP 1994-85911 19940330
AN 1995-388695 [50] WPIDS
AB JP 07265093 A UPAB: 19951215
Searcher : Shears 308-4994

A novel process for producing an antigenic protein on the surface of **Japanese encephalitis** virus, comprises introducing into mammalian cells, pref. CHO, COS or Vero cells, an expression vector having the whole or a part of cDNA coding for an antigenic protein (E protein) on the surface of **Japanese encephalitis** virus, then culturing the mammalian cells and recovering the expressed antigenic protein.

USE - The antigenic protein (E protein) is used as a **vaccine** or for an immunological preventive agent or diagnostic agent particularly for use in ELISA, hemagglutination test, hemagglutination inhibition test and complement fixation test, as well as in a variety tests with an antigen or antibody labelled with fluorescent pigment, enzyme, radioactive isotope, etc., to analyze **Japanese encephalitis** virus with similar antigenicity of the genus flavivirus.

ADVANTAGE - Because the antigenic protein is secreted from transformed mammalian host cells into the culture, its purification is easy in the absence contaminations including the recombinant virus, to assure high safety for the antigenic protein as a **vaccine** against **Japanese encephalitis** virus.

Dwg.0/0

L8 ANSWER 28 OF 42 BIOSIS COPYRIGHT 2000 BIOSIS

ACCESSION NUMBER: 1996:285430 BIOSIS

DOCUMENT NUMBER: PREV199699007786

TITLE: The study of adaptation of **Japanese encephalitis** virus in Vero cells.

AUTHOR(S): Shi Huiying, Ding Zhifen; Chang Zhenyan

CORPORATE SOURCE: Natl. Vaccine and Serum Inst., Beijing 100024 China

SOURCE: Virologica Sinica, (1995) Vol. 10, No. 4, pp. 273-277.

ISSN: 1000-3223.

DOCUMENT TYPE: Article

LANGUAGE: Chinese

SUMMARY LANGUAGE: Chinese; English

AB P-3 strain of **Japanese Encephalitis** (JE

) virus was adapted in Vero cells for 27 passages. No significant changes were found on virus titre and CPE after adaptation, but the immunogenicity was getting weaker after 10 passages. The immunogenicity weakened could be recovered partially by repassaging the Vero-cells adapted virus in mouse brain. Less than 10 passages of adapted virus growing in Vero cells could be used as seed virus for production of **JE vaccine** instead of virus prepared from mouse brain. Using the adapted virus for **vaccine** production could be easier to avoid the contamination of extraneous agents compared with using the virus from mouse brain.

L8 ANSWER 29 OF 42 MEDLINE

ACCESSION NUMBER: 95266302 MEDLINE

DOCUMENT NUMBER: 95266302

TITLE: Sindbis vectors suppress secretion of subviral particles of **Japanese encephalitis** virus from mammalian cells infected with SIN-JEV recombinants.

AUTHOR: Pugachev K V; Mason P W; Frey T K

CORPORATE SOURCE: Department of Biology, Georgia State University, Atlanta 30303, USA.

SOURCE: VIROLOGY, (1995 May 10) 209 (1) 155-66.

Journal code: XEA. ISSN: 0042-6822.

PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals; Cancer Journals

ENTRY MONTH: 199508

AB Double-subgenomic Sindbis virus (dsSIN) recombinants that express cassettes encoding prM-E or a C-terminally truncated form of E of **Japanese encephalitis** virus (JEV) were constructed. The products were efficiently expressed in both mammalian and mosquito cell lines infected with the dsSIN recombinants. However, suppression of prM-E secretion from mammalian cells infected with dsSIN-prM-E recombinants was observed. This suppression was more pronounced late in infection (< 5% of total product was secreted during an 8-hr chase) than early in infection (15% secretion during a 6-hr chase). In comparison, a **vaccinia** virus-prM-E recombinant (vP829) described previously (E. Konishi et al. (1991) Virology 185, 401-410) was shown to secrete 35-50% of total product during a 6- to 8-hr chase both early and late in infection. In contrast, secretion of prM-E from dsSIN-prM-E-infected mosquito (C6/36) cells was found to be efficient (> 50% during an 8-hr chase). The prM-E secreted from both mammalian and mosquito cells was in the form of subviral particles as determined by velocity gradient centrifugation, sensitivity to nonionic detergent, and analysis of processing of N-linked glycans. The truncated E protein expressed by the dsSIN recombinants was secreted efficiently from both mammalian and mosquito cells. Coinfection experiments with the dsSIN-JEV recombinants + wild-type **vaccinia** virus and vP829 + SIN demonstrated that the reduced level of secretion of subviral particles exhibited by the dsSIN-JEV recombinants was due to an inhibitory effect of the dsSIN vectors. Furthermore, this inhibitory effect was accounted for by the SIN nonstructural proteins since SIN replicons that express prM-E cassette in place of the SIN structural protein open reading frame exhibited a low level of subviral particle secretion. No self-propagating infectious particles were produced in cells transfected with SIN replicons that encode the **JEV** prM-E cassette. The suppression of subviral particle secretion was

Searcher : Shears 308-4994

apparently correlated with the inhibition of cell protein synthesis which is mediated in SIN-infected vertebrate cells by expression of the SIN nonstructural proteins.

L8 ANSWER 30 OF 42 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
 ACCESSION NUMBER: 1993-373579 [47] WPIDS
 DOC. NO. CPI: C1993-165304
 TITLE: Non-infective structure particle prepn., useful as
 vaccine - by infecting preliminarily
 flavivirus infected cell with cDNA integrated
 recombinant **vaccinia** virus, and then
 sepg. non-infective structure particles contg.
 E-protein of flavivirus.
 DERWENT CLASS: B04 D16
 PATENT ASSIGNEE(S): (JAPG) NIPPON ZEON KK; (TOKY-N) ZH TOKYOTO SHINKEI
 KAGAKU SOGO KENKYUSHO
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 05276941	A	19931026	(199347)*		7

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 05276941	A	JP 1992-43682	19920228

PRIORITY APPLN. INFO: JP 1992-43682 19920228

AN 1993-373579 [47] WPIDS

AB JP 05276941 A UPAB: 19940111

To preliminarily Flavivirus infected cell, cDNA integrated recombinant Vacinia virus is infected; next, from the cultured supernatant, noninfective structure particles contg. E protein of Flavivirus is sepd.; the cDNA encodes substantially all the part sof Flavivirus derived prM protein and surface antigen protein.

Pref. (1) preliminarily infecting virus is dengue 2 type virus; (2) the cDNA encodes protein of **Japanese encephalitis** virus; and (3) sedimentation coefft. of the structure particle is below 100S.

USE/ADVANTAGE - Substdantially Flavivirus E protein contg. non-infective structure particle, pref. sedimentation coefft. less than or equal to 100s, more pref. ca. 70S, can be obtd.. It can be used for **vaccine**.

In an example, preliminarily dengue 2-type virus was infected at m.o.i. 2 to **Vero** cell, before 24 hours of **vaccinia** virus infection. To 4 x 10power-6 preinfected

Searcher : Shears 308-4994

Vero cell, recombinant **vaccinia** virus LAJ6-Se and LAJ6 were infected at m.o.i. 2, followed by culturing for 18 hours. The supernatant was filtered with 0.2 micron pore size filter, and ultracentrifuged at 150,000 Xg, for 2 hours. Obtained ppte. was washed with PBS buffer, suspended in 100 micro l of 10 mM carbonate buffer (pH 9.8), diluted, and coated.

Dwg.0/0

L8 ANSWER 31 OF 42 MEDLINE

ACCESSION NUMBER: 93342861 MEDLINE

DOCUMENT NUMBER: 93342861

TITLE: Immunogenicity of wild-type and **vaccine** strains of **Japanese encephalitis** virus and the effect of haplotype restriction on murine immune responses.

AUTHOR: Wills M R; Singh B K; Debnath N C; Barrett A D

CORPORATE SOURCE: Molecular Microbiology Group, School of Biological Sciences, University of Surrey, Guildford, UK..

SOURCE: **VACCINE**, (1993) 11 (7) 761-6.
Journal code: X60. ISSN: 0264-410X.

PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199311

AB The Chinese live attenuated **Japanese encephalitis** (**JE**) virus **vaccine** clone SA14-14-2 produced in primary hamster kidney (PHK) cells has been adapted to primary dog kidney cells (PDK) for use as a live attenuated human **vaccine**. In this study we have compared the immunogenicity in mice of SA14-14-2 (PDK) and SA14-14-2 (PHK); also included was the wild-type parent to the **vaccine** clones, SA14, and another wild-type **JE** virus strain Nakayama (original). It was found that Balb/c (H-2d) mice given a single dose of 10(3) or 10(6) p.f.u. of live SA14-14-2 (PHK) virus elicited a superior neutralizing (N) antibody response as compared to the same dosages of live SA14-14-2 (PDK) virus. However, if the **vaccine** clones were inactivated and administered in a two-dose regime the N antibody response elicited was similar for the two viruses. This observation may be explained by differences in the replication efficiency in vivo of the respective **vaccine** clones. The humoral immune response to all the virus strains in this study elicited by different inbred mouse strains each carrying a discrete haplotype (Balb/c (H-2d), C3H (H-2k), C57BL/6 (H-2b)) were also assessed using haemagglutination inhibition (HAI) and N assays. Viruses were shown to elicit patterns of high and low N-antibody response depending on the major histocompatibility complex (MHC) make-up of the mouse strains. However, the patterns did not necessarily coincide when HAI and N titre reactivity patterns were

Searcher : Shears 308-4994

09/486392

compared for the same virus strain.

L8 ANSWER 32 OF 42 MEDLINE

ACCESSION NUMBER: 94257819 MEDLINE

DOCUMENT NUMBER: 94257819

TITLE: A domestic cell bioreactor and its application in virus culture.

AUTHOR: Dong S; Gu X; Chen Y; Yan C; Jiang B; Zhao Y; Chen L; Song J; Chen W

CORPORATE SOURCE: Research Institute of Biochemical Engineering, East China University of Chemical Technology (ECUCT), Shanghai..

SOURCE: CHINESE JOURNAL OF BIOTECHNOLOGY, (1993) 9 (2) 117-21.

Journal code: A5Y. ISSN: 1042-749X.

PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199409

AB A cell culture bioreactor (CellCul-20) and its application in cell and virus culture are described in this paper. It has been evaluated with strict aseptic tests and one-year's operation shown that CellCul-20 bioreactor can keep its aseptic condition after being autoclaved. It can meet the requirement for the control of the main parameters for cell and virus culture and the finely adjustment of the main parameters to meet the changing conditions of the cultivation. A high cell density and a high level of virus titre were reached respectively for **Vero** cells and **Japanese encephalitis** virus (**JEV**) while they were cultured in this bioreactor. It is the first report on large-scale culture of **JEV**-infected **Vero** cells to prepare primary **JEV vaccine**. Some suggestions are made for the improvement of CellCul-20.

L8 ANSWER 33 OF 42 SCISEARCH COPYRIGHT 2000 ISI (R)

ACCESSION NUMBER: 92:699601 SCISEARCH

THE GENUINE ARTICLE: JZ987

TITLE: EXPRESSION AND SECRETION OF **JAPANESE ENCEPHALITIS**-VIRUS NONSTRUCTURAL PROTEIN-NS1

BY INSECT CELLS USING A RECOMBINANT BACULOVIRUS

AUTHOR: FLAMAND M (Reprint); DEUBEL V; GIRARD M

CORPORATE SOURCE: INST PASTEUR, ARBOVIRUS LAB, 25 RUE DR ROUX, F-75724 PARIS 15, FRANCE (Reprint); INST PASTEUR, UNITE VIROL MOLEC, F-75724 PARIS 15, FRANCE

COUNTRY OF AUTHOR: FRANCE

SOURCE: VIROLOGY, (DEC 1992) Vol. 191, No. 2, pp. 826-836.

ISSN: 0042-6822.

DOCUMENT TYPE: Article; Journal

Searcher : Shears 308-4994

FILE SEGMENT: LIFE
 LANGUAGE: ENGLISH
 REFERENCE COUNT: 50

L8 ANSWER 34 OF 42 BIOSIS COPYRIGHT 2000 BIOSIS
 ACCESSION NUMBER: 1992:250840 BIOSIS
 DOCUMENT NUMBER: BR42:121140
 TITLE: ANTICARBOHYDRATE MONOCLONAL ANTIBODIES INHIBIT
 FLAVIVIRUSES AND BUNYAVIRUSES MOLECULAR ASPECTS.
 AUTHOR(S): BLOUGH H A; KEFAUVER D; HACK D; MONATH T P
 CORPORATE SOURCE: NATIONAL NAVAL MED. CENTER, BETHESDA, MD. 20889.
 SOURCE: THE FIFTH INTERNATIONAL CONFERENCE ON ANTIVIRAL
 RESEARCH, VANCOUVER, BRITISH COLUMBIA, CANADA, MARCH
 8-13, 1992. ANTIVIRAL RES, (1992) 17 (SUPPL 1), 93.
 CODEN: ARSRDR. ISSN: 0166-3542.
 DOCUMENT TYPE: Conference
 FILE SEGMENT: BR; OLD
 LANGUAGE: English

L8 ANSWER 35 OF 42 SCISEARCH COPYRIGHT 2000 ISI (R)
 ACCESSION NUMBER: 91:335596 SCISEARCH
 THE GENUINE ARTICLE: FQ453
 TITLE: CHARACTERIZATION OF YELLOW-FEVER VIRUS PROTEINS-E
 AND NS1 EXPRESSED IN VERO AND
 SPODOPTERA-FRUGIPERDA CELLS
 AUTHOR: DESPRES P; GIRARD M; BOULOY M (Reprint)
 CORPORATE SOURCE: INST PASTEUR, CNRS, URA 545, UNITE VIROL MOLEC, 25
 RUE DR ROUX, F-75724 PARIS, FRANCE
 COUNTRY OF AUTHOR: FRANCE
 SOURCE: JOURNAL OF GENERAL VIROLOGY, (1991) Vol. 72, No.
 JUN, pp. 1331-1342.
 DOCUMENT TYPE: Article; Journal
 FILE SEGMENT: LIFE
 LANGUAGE: ENGLISH
 REFERENCE COUNT: 54

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The cDNA encoding the E and NS1 proteins of the yellow fever virus (YFV) was expressed in Spodoptera frugiperda cells via the recombinant baculovirus Ac-E.NS1 as a gp100 precursor which was cleaved to generate the recombinant proteins E and NS1 similar in size, folding and antigenicity to the authentic ones. Recombinant protein E exhibited immunodominant epitopes as judged by its reactivity with YFV-neutralizing MABs. Using the Triton X-114 phase separation system, authentic and recombinant E proteins as well as the gp100 precursor exhibited hydrophobic properties similar to those of integral membrane proteins. Recombinant protein E was found neither in the extracellular medium nor on the cell surface, suggesting that it did not migrate within the secretory pathway of insect cells. Analysis of protein NS1 expressed in primate and

Searcher : Shears 308-4994

insect cells revealed that the newly synthesized 48K NS1 glycoprotein was converted to a heat-labile gp72 homo-oligomeric form. This phenomenon did not require the presence of carbohydrate groups. Using the Triton X-114 phase separation system, the oligomeric form of NS1 was shown to be associated with cellular membranes although it appeared less hydrophobic than protein E and gp100. A small fraction of YFV NS1 oligomers were transported throughout the secretory pathway to be shed into the extracellular medium of primate cells. YFV NS1 oligomers migrated from the endoplasmic reticulum to the Golgi complex, whereas their N-oligosaccharides of the high-mannose type are processed to the complex-mannose type. Protein NS1 expressed by recombinant baculovirus-infected insect cells was not found in the extracellular medium but associated with the plasma membrane of the cells. Two recombinant NS1 forms were detected in insect cells: a major one with an apparent M(r) of 48K and a minor one of 47K in which N-linked glycans were probably processed to a trimannosyl core without further elongation. Thus, it appears that the transport strategy as well as the N-glycosylation of NS1 in insect cells infected with recombinant baculovirus were different from those of the NS1 in primate cells infected with YFV.

L8 ANSWER 36 OF 42 MEDLINE

ACCESSION NUMBER: 92024099 MEDLINE

DOCUMENT NUMBER: 92024099

TITLE: Comparison of protective immunity elicited by recombinant **vaccinia** viruses that synthesize E or NS1 of **Japanese encephalitis** virus.

AUTHOR: Konishi E; Pincus S; Fonseca B A; Shope R E; Paoletti E; Mason P W

CORPORATE SOURCE: Department of Epidemiology and Public Health, Yale University School of Medicine, New Haven, Connecticut 06510.

CONTRACT NUMBER: AI10987-17 (NIAID)

SOURCE: VIROLOGY, (1991 Nov) 185 (1) 401-10.
Journal code: XEA. ISSN: 0042-6822.

PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals; Cancer Journals

ENTRY MONTH: 199201

AB **Immunization** with recombinant **vaccinia** viruses that specified the synthesis of **Japanese encephalitis** virus (**JEV**) glycoproteins protected mice from a lethal intraperitoneal challenge with **JEV**. Recombinants which coexpressed the genes for the structural glycoproteins, prM and E, elicited high levels of neutralizing (**NEUT**) and hemagglutination inhibiting (**HAI**) antibodies in mice and

Searcher : Shears 308-4994

protected mice from a lethal challenge by **JEV**.
 Recombinants expressing only the gene for the nonstructural glycoprotein, NS1, induced antibodies to NS1 but provided low levels of protection from a similar challenge dose of **JEV**.
 Antibodies to the NS3 protein in postchallenge sera, representing the degree of infection with challenge virus, were inversely correlated to NEUT and HAI titers and levels of protection. These results indicate that although **vaccinia** recombinants expressing NS1 can provide some protection from lethal **JEV** infection, recombinants expressing prM and E elicited higher levels of protective immunity.

L8 ANSWER 37 OF 42 SCISEARCH COPYRIGHT 2000 ISI (R)
 ACCESSION NUMBER: 91:125842 SCISEARCH
 THE GENUINE ARTICLE: EZ173
 TITLE: PREPARATION OF **JAPANESE ENCEPHALITIS**-VIRUS NONSTRUCTURAL PROTEIN NS1
 OBTAINED FROM CULTURE FLUID OF **JEV**
 -INFECTED **VERO** CELLS
 AUTHOR: LEE T; WATANABE K; AIZAWA C; NOMOTO A; HASHIMOTO H
 (Reprint)
 CORPORATE SOURCE: KITASATO INST, DEPT VIROL, SHIROKANE 591, MINATO KU,
 TOKYO 108, JAPAN; TOKYO METROPOLITAN INST MED SCI,
 DEPT MICROBIOL, BUNKYO KU, TOKYO 113, JAPAN
 COUNTRY OF AUTHOR: JAPAN
 SOURCE: ARCHIVES OF VIROLOGY, (1991) Vol. 116, No. 1-4, pp.
 253-260.
 DOCUMENT TYPE: Note; Journal
 FILE SEGMENT: LIFE
 LANGUAGE: ENGLISH
 REFERENCE COUNT: 22

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The **Japanese encephalitis** virus (**JEV**) nonstructural protein NSI was released efficiently into culture fluid of **JEV**-infected **Vero** cells. The **JEV** NSI protein in the infected culture fluid was found almost as a high-molecular-weight form, probably a dimer form of NSI, and was converted to a monomer by boiling. Large amounts of NSI protein were accumulated in the infected culture fluid. The NSI protein, separated from **JE** virions by centrifugation through sucrose layer, could be obtained in large quantities.

L8 ANSWER 38 OF 42 MEDLINE
 ACCESSION NUMBER: 90244392 MEDLINE
 DOCUMENT NUMBER: 90244392
 TITLE: Induction of protective immunity in animals
vaccinated with recombinant **vaccinia**
 viruses that express PreM and E glycoproteins of
Japanese encephalitis virus.

Searcher : Shears 308-4994

AUTHOR: Yasuda A; Kimura-Kuroda J; Ogimoto M; Miyamoto M;
Sata T; Sato T; Takamura C; Kurata T; Kojima A; Yasui
K
CORPORATE SOURCE: Biological Science Laboratory, Nippon Zeon Co. Ltd.,
Kanagawa, Japan..
SOURCE: JOURNAL OF VIROLOGY, (1990 Jun) 64 (6) 2788-95.
Journal code: KCV. ISSN: 0022-538X.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199008

AB A cDNA clone representing the genome of structural proteins of
Japanese encephalitis virus (JEV) was
inserted into the thymidine kinase gene of **vaccinia** virus
strains LC16mO and WR under the control of a strong early-late
promoter for the **vaccinia** virus 7.5-kilodalton
polypeptide. Indirect immunofluorescence and fluorescence-activated
flow cytometric analysis revealed that the recombinant
vaccinia viruses expressed **JEV E** protein on the
membrane surface, as well as in the cytoplasm, of
recombinant-infected cells. In addition, the E protein expressed
from the **JEV** recombinants reacted to nine different
characteristic monoclonal antibodies, some of which have
hemagglutination-inhibiting and **JEV**-neutralizing
activities. Radioimmunoprecipitation analysis demonstrated that two
major proteins expressed in recombinant-infected cells were
processed and glycosylated as the authentic PreM and E glycoproteins
of **JEV**. Inoculation of rabbits with the infectious
recombinant **vaccinia** virus resulted in rapid production of
antiserum specific for the PreM and E glycoproteins of **JEV**
. This antiserum had both hemagglutination-inhibiting and
virus-neutralizing activities against **JEV**. Furthermore,
mice **vaccinated** with the recombinant also produced
JEV-neutralizing antibodies and were resistant to challenge
with **JEV**.

L8 ANSWER 39 OF 42 MEDLINE

ACCESSION NUMBER: 90085816 MEDLINE

DOCUMENT NUMBER: 90085816

TITLE: Characterization of **Japanese**
encephalitis virus envelope protein expressed
by recombinant baculoviruses.

AUTHOR: Matsuura Y; Miyamoto M; Sato T; Morita C; Yasui K
CORPORATE SOURCE: Department of Veterinary Science, National Institute
of Health, Tokyo, Japan..
SOURCE: VIROLOGY, (1989 Dec) 173 (2) 674-82.
Journal code: XEA. ISSN: 0042-6822.
PUB. COUNTRY: United States

Searcher : Shears 308-4994

Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals; Cancer Journals
 ENTRY MONTH: 199003

AB Recombinant baculoviruses containing the coding sequences of the viral structural proteins, i.e., the capsid (C) protein, the precursor to premembrane (preM) protein, and the envelope (E) protein, as well as a nonstructural protein, NS1, of **Japanese encephalitis virus (JEV)** were constructed. Infection of *Spodoptera frugiperda* cells with these recombinant viruses produced PreM and E proteins. The E proteins synthesized by the recombinants were shown to be glycosylated and similar in size to the authentic E protein. The E protein was found on the surface of infected cells. The antigenic properties of recombinant E proteins were evaluated using a panel of monoclonal antibodies produced against **JEV** E protein. It was demonstrated that all of the epitopes detectable on the authentic **JEV** E protein were present on the recombinant E protein expressed by a recombinant baculovirus containing the coding sequence for a part of C, PreM, E, and a part of NS1 proteins. However, for E protein expressed by a recombinant baculovirus having the coding sequence of only a part of PreM, but all of E and a part of NS1, one of the flavivirus cross-reactive epitopes was not detected. Mice **immunized** with cells infected with the recombinant baculoviruses developed neutralization antibodies.

L8 ANSWER 40 OF 42 MEDLINE DUPLICATE 8
 ACCESSION NUMBER: 84051078 MEDLINE
 DOCUMENT NUMBER: 84051078
 TITLE: Broad-spectrum antiviral activity of
 2-beta-D-ribofuranosylselenazole-4-carboxamide, a new
 antiviral agent.
 AUTHOR: Kirsi J J; North J A; McKernan P A; Murray B K;
 Canonico P G; Huggins J W; Srivastava P C; Robins R K
 SOURCE: ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, (1983 Sep) 24
 (3) 353-61.
 Journal code: 6HK. ISSN: 0066-4804.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198402

AB The relative in vitro antiviral activities of three related nucleoside carboxamides, ribavirin (1-beta-D-ribofuranosyl-1,2,4-triazole-3-carboxamide), tiazofurin (2-beta-D-ribofuranosylthiazole-4-carboxamide), and selenazole (2-beta-D-ribofuranosylselenazole-4-carboxamide), were studied against selected DNA and RNA viruses. Although the activity of selenazole against different viruses varied, it was significantly more potent than ribavirin and

Searcher : Shears 308-4994

tiazofurin against all tested representatives of the families Paramyxoviridae (parainfluenza virus type 3, mumps virus, measles virus), Reoviridae (reovirus type 3), Poxviridae (**vaccinia** virus), Herpes-viridae (herpes simplex virus types 1 and 2), Togaviridae (Venezuelan equine encephalomyelitis virus, yellow fever virus, **Japanese encephalitis** virus), Bunyaviridae (Rift Valley fever virus, sandfly fever virus [strain Sicilian], Korean hemorrhagic fever virus), Arenaviridae (Pichinde virus), Picornaviridae (coxsackieviruses B1 and B4, echovirus type 6, encephalomyocarditis virus), Adenoviridae (adenovirus type 2), and Rhabdoviridae (vesicular stomatitis virus). The antiviral activity of selenazole was also cell line dependent, being greatest in HeLa, **Vero**-76, and **Vero** E6 cells. Selenazole was relatively nontoxic for **Vero**, **Vero**-76, **Vero** E6, and HeLa cells at concentrations of up to 1,000 micrograms/ml. The relative plating efficiency at that concentration was over 90%. The effects of selenazole on viral replication were greatest when this agent was present at the time of viral infection. The removal of selenazole from the medium of infected cells did not reverse the antiviral effect against **vaccinia** virus, but there was a gradual resumption of viral replication in cells infected with parainfluenza type 3 or herpes simplex virus type 1 (strain KOS). However, the antiviral activity of ribavirin against the same viruses was reversible when the drug was removed.

L8 ANSWER 41 OF 42 MEDLINE DUPLICATE 9
 ACCESSION NUMBER: 75151107 MEDLINE
 DOCUMENT NUMBER: 75151107
 TITLE: The interference by **Japanese encephalitis** virus with Newcastle disease virus in **Vero** cells.
 AUTHOR: Mifune K; Makino Y
 SOURCE: INTERVIROLOGY, (1974) 4 (3) 150-61.
 Journal code: GW7. ISSN: 0300-5526.
 PUB. COUNTRY: Switzerland
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 197509

L8 ANSWER 42 OF 42 JAPIO COPYRIGHT 2000 JPO
 ACCESSION NUMBER: 2000-083657 JAPIO
 TITLE: **JAPANESE ENCEPHALITIS VIRUS VACCINE**
 INVENTOR: KUZUHARA SHOJI; TOTSUKA ATSUKO; ETO AKIRA;
 NISHIYAMA KIYOTO; KINO YOICHIRO
 PATENT ASSIGNEE(S): CHEMA SERO THERAPEUT RES INST)
 PATENT INFORMATION:

09/486392

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 2000083657A		20000328	Heisei	C12N007-02

JP

APPLICATION INFORMATION

ST19N FORMAT:	JP1999-188308	19990702
ORIGINAL:	JP11188308	Heisei
PRIORITY APPLN. INFO.:	JP1999 197040	19990713
SOURCE:	PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2000	

AN 2000-083657 JAPIO

AB PROBLEM TO BE SOLVED: To efficiently obtain **Japanese encephalitis** viruses or their antigen components useful for producing **vaccines**, etc., in a high yield by infecting established cells with the **Japanese encephalitis** viruses, culturing the infected cells and purifying the viruses or their antigen components from the culture product.

SOLUTION: This method for preparing **Japanese encephalitis** viruses or their antigen components comprises infecting established cells, such as animal or insect-originated cells, selected from the group consisting of **Vero** cells, GL37 cells (FERM P-16857), HmLu-1 cells, BHK-21 cells, MDCK cells and C6/36 cells with **Japanese encephalitis** viruses such as **Beijin-1** strain or **Nakayama** strain, culturing the virus-injected cells by a static culture method, a roller bottle culture method, a suspension culture method, etc., and subsequently purifying the viruses or their antigen components from the culture product by a purification method such as a concentration method using an ultrafiltration membrane or an ion exchange or adsorption chromatography. The obtained **Japanese encephalitis** viruses or their antigenic components are preferably used to prepare **Japanese encephalitis** virus **vaccines**.

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(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, TOXLIT, TOXLINE, PHIC, PHIN' ENTERED AT 12:02:18 ON 27 SEP 2000)

L9	51084	SEA	ABB=ON	PLU=ON	KIM H?/AU
L10	490	SEA	ABB=ON	PLU=ON	YOO W?/AU
L11	71138	SEA	ABB=ON	PLU=ON	KIM S?/AU
L12	86162	SEA	ABB=ON	PLU=ON	LEE S?/AU
L13	3206	SEA	ABB=ON	PLU=ON	MOON S?/AU
L14	14557	SEA	ABB=ON	PLU=ON	HONG S?/AU
L15	6974	SEA	ABB=ON	PLU=ON	SHIN Y?/AU
L16	8680	SEA	ABB=ON	PLU=ON	CHUNG Y?/AU
L17	271	SEA	ABB=ON	PLU=ON	ECKELS K?/AU
L18	375	SEA	ABB=ON	PLU=ON	INNIS B?/AU
L19	0	SEA	ABB=ON	PLU=ON	PUINAK J?/AU

Searcher : Shears 308-4994

- Author (S)

L20 297 SEA ABB=ON PLU=ON BINN L?/AU
 L21 7245 SEA ABB=ON PLU=ON SRIVASTAVA A?/AU
 L22 2896 SEA ABB=ON PLU=ON DUBOIS D?/AU
 L23 69 SEA ABB=ON PLU=ON PUTNAK J?/AU
 L24 2 SEA ABB=ON PLU=ON L9 AND L10 AND L11 AND L12 AND L13
 AND L14 AND L15 AND L16 AND L17 AND L18 AND L20 AND L21
 AND L22 AND L23
 L25 ✓ 6408 SEA ABB=ON PLU=ON L9 AND (L10 OR L11 OR L12 OR L13 OR
 L14 OR L15 OR L16 OR L17 OR L18 OR L20 OR L21 OR L22 OR
 L23)
 L26 ✓ 74 SEA ABB=ON PLU=ON L10 AND (L11 OR L12 OR L13 OR L14 OR
 L15 OR L16 OR L17 OR L18 OR L20 OR L21 OR L22 OR L23)
 L27 ✓ 4954 SEA ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14 OR L15 OR
 L16 OR L17 OR L18 OR L20 OR L21 OR L22 OR L23)
 L28 ✓ 1698 SEA ABB=ON PLU=ON L12 AND (L13 OR L14 OR L15 OR L16 OR
 L17 OR L18 OR L20 OR L21 OR L22 OR L23)
 L29 ✓ 56 SEA ABB=ON PLU=ON L13 AND (L14 OR L15 OR L16 OR L17 OR
 L18 OR L20 OR L21 OR L22 OR L23)
 L30 ✓ 165 SEA ABB=ON PLU=ON L14 AND (L15 OR L16 OR L17 OR L18 OR
 L20 OR L21 OR L22 OR L23)
 L31 26 SEA ABB=ON PLU=ON L15 AND (L16 OR L17 OR L18 OR L20 OR
 L21 OR L22 OR L23)
 L32 3 SEA ABB=ON PLU=ON L16 AND (L17 OR L18 OR L20 OR L21 OR
 L22 OR L23)
 L33 ✓ 133 SEA ABB=ON PLU=ON L17 AND (L18 OR L20 OR L21 OR L22 OR
 L23)
 L34 ✓ 40 SEA ABB=ON PLU=ON L18 AND (L20 OR L21 OR L22 OR L23)
 L35 ✓ 33 SEA ABB=ON PLU=ON L20 AND (L21 OR L22 OR L23)
 L36 9 SEA ABB=ON PLU=ON L21 AND (L22 OR L23)
 L37 3 SEA ABB=ON PLU=ON L22 AND L23
 L38 6 SEA ABB=ON PLU=ON (L25 OR L26 OR L27 OR L28 OR L29 OR
 L30 OR L33 OR L34 OR L35) AND L2
 L39 35 SEA ABB=ON PLU=ON L24 OR L31 OR L32 OR L36 OR L37 OR
 L38
 L40 22 DUP REM L39 (13 DUPLICATES REMOVED)

L40 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 2000:636179 CAPLUS

TITLE: Recombinant vaccine made in e. coli against
dengue virus

INVENTOR(S): **Srivastava, Ashok Kumar; Putnak,**
J. Robert; Hoke, Charles H.; Warren,
Richard L.

PATENT ASSIGNEE(S): The United States of America as Represented by
the Secretary of the Army, USA

SOURCE: U.S., 16 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

Searcher : Shears 308-4994

09/486392

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6117640	A	20000912	US 1995-433263	19950502

AB A recombinant protein encompassing a C-terminal portion from the structural envelope glycoprotein and an N-terminal portion from non-structural protein one of dengue type 2 virus was expressed in Escherichia coli as a fusion protein with Staphylococcal protein A. The recombinant protein was found to provide protection against lethal challenge with dengue 2 in mice.

REFERENCE COUNT: 13

REFERENCE(S): (1) Acsadi, G; Nature 1991, V352, P815 CAPLUS
(3) Anon; WO 9202548 1992 CAPLUS
(4) Eckels; Amer J Trop Med and Hygiene 1994, V50(4), P472 CAPLUS
(5) Feighny; Amer J Trop Med and Hygiene 1994, V50(3), P322 CAPLUS
(6) Fonseca; Vaccine 1994, V12(3), P279 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 1

ACCESSION NUMBER: 1999:189180 CAPLUS

DOCUMENT NUMBER: 130:213608

TITLE: An attenuated **Japanese encephalitis** virus adapted to Vero cell and a **Japanese encephalitis** vaccine

INVENTOR(S): Kim, Hyun Su; Yoo, Wang Don;
Kim, Soo Ok; Lee, Sung Hee;
Moon, Sang Bum; Hong, Sun Pyo;
Shin, Yong Cheol; Chung, Yong Ju
; Eckels, Kenneth H.; Innis, Bruce; Putnak, Joseph R.;
Binn, Leonard N.; Srivastava, Ashok K.; Dubois, Doria R.

PATENT ASSIGNEE(S): Cheil Jedang Corporation, S. Korea; Walter Reed Army Institute of Research

SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911762	A1	19990311	WO 1998-KR259	19980825

Searcher : Shears 308-4994

09/486392

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,
TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG,
KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9890047 A1 19990322 AU 1998-90047 19980825

EP 1025209 A1 20000809 EP 1998-941885 19980825

R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL

PRIORITY APPLN. INFO.:

KR 1997-42001 19970828

KR 1997-42002 19970828

WO 1998-KR259 19980825

AB SThe present invention relates to an attenuated **Japanese encephalitis** virus adapted to **Vero** cell by passages on **Vero** cell and a **Japanese encephalitis** vaccine comprising said attenuated virus. **Japanese encephalitis** virus adapted to **Vero** cell after 4 passage was used for prepn. of a vaccine. The titer of neutralizing antibodies (the reciprocal of serum diln. resulting in 50% redn. of mouse brain passaged Nakayama virus plaques) for both purified, inactivated virus (PIV) and live, attenuated virus in mice at a dose of 5 .mu.g was 1:320. Mice were immunized with 2 inoculations of test vaccines (comprising PIV) spaced 3 wk apart, then challenged with 500 pfu of mouse-neurovirulent Nakayama virus. Mice immunized with 500 ng of PIV or 50 ng PIV and alum showed 100% protection.

REFERENCE COUNT: 3

REFERENCE(S): (1) Division Of Microbiology; EP 0562136 A1 1993
(2) Nippon Zoki Pharmaceut Co Ltd; JP 01117780 A 1989
(3) Tekada Chem Ind Ltd; JP 02223531 A 1990

L40 ANSWER 3 OF 22 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-503106 [45] WPIDS
DOC. NO. CPI: C2000-150981
TITLE: Pseudopeptide derivatives, process for preparing the same and composition for Ras mutation cell growth inhibition containing - the same NoAbstract.
DERWENT CLASS: B04
INVENTOR(S): CHUNG, Y H; HWANG, H J; KIM, J G; LEE, B Y; SHIN, Y A; UHM, H D
PATENT ASSIGNEE(S): (YUHA-N) YUHAN CORP
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG
Searcher : Shears 308-4994

09/486392

KR 99057487 A 19990715 (200045)*

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
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KR 99057487	A	KR 1997-77539	19971230

PRIORITY APPLN. INFO: KR 1997-77539 19971230
**** DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L40 ANSWER 4 OF 22 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-245100 [21] WPIDS
TITLE: Method for stiffening structure by increasing
terminal stiffness of a stiffener - NoAbstract.
DERWENT CLASS: Q44
INVENTOR(S): CHUNG, Y S; HAN, M Y; HWANG, U S; LEE, C
D; SHIN, Y S
PATENT ASSIGNEE(S): (BOND-N) BOND CONSTR IND JH T S; (HANM-I) HAN M Y
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
-----	-----	-----	-----	-----	-----
KR 99019541	A	19990315	(200021)*		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
-----	-----	-----	-----
KR 99019541	A	KR 1997-42929	19970829

PRIORITY APPLN. INFO: KR 1997-42929 19970829
**** DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L40 ANSWER 5 OF 22 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-245098 [21] WPIDS
TITLE: Method for stiffening structure by enlarging
terminal cross section of stiffener - NoAbstract.
DERWENT CLASS: Q44
INVENTOR(S): CHUNG, Y S; HAN, M Y; HONG, Y G;
SHIN, Y S; YEON, G S
PATENT ASSIGNEE(S): (BOND-N) BOND CONSTR IND JH T S; (HANM-I) HAN M Y
COUNTRY COUNT: 1
PATENT INFORMATION:

Searcher : Shears 308-4994

09/486392

PATENT NO	KIND	DATE	WEEK	LA	PG

KR 99019539	A	19990315	(200021)*		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

KR 99019539	A	KR 1997-42927	19970829

PRIORITY APPLN. INFO: KR 1997-42927 19970829
**** DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L40 ANSWER 6 OF 22 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-219863 [19] WPIDS
TITLE: Double torch type gas brazing robot system -
NoAbstract.
DERWENT CLASS: P62
INVENTOR(S): CHUNG, Y G; SHIN, Y S
PATENT ASSIGNEE(S): (HYUN-N) HYUNDAI MOTOR CO LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

KR 99015163	A	19990305	(200019)*		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

KR 99015163	A	KR 1997-37075	19970802

PRIORITY APPLN. INFO: KR 1997-37075 19970802
**** DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L40 ANSWER 7 OF 22 TOXLIT
ACCESSION NUMBER: 1999:6566 TOXLIT
DOCUMENT NUMBER: CA-130-213608U
TITLE: An attenuated **Japanese encephalitis**
virus adapted to Vero cell and a
Japanese encephalitis vaccine.
AUTHOR: Kim HS; Yoo WD; Kim SO;
Lee SH; Moon SB; Hong SP;
Shin YC; Chung YJ; Eckels
KH; et al.
SOURCE: (1999). PCT Int. Appl. PATENT NO. 9911762 03/11/1999
Searcher : Shears 308-4994

(Walter Reed Army Institute of Research).

CODEN: PIXXD2.

PUB. COUNTRY: KOREA, REPUBLIC OF
 DOCUMENT TYPE: Patent
 FILE SEGMENT: CA
 LANGUAGE: English
 OTHER SOURCE: CA 130:213608
 ENTRY MONTH: 199904

AB The present invention relates to an attenuated **Japanese encephalitis** virus adapted to Vero cell by passages on Vero cell and a **Japanese encephalitis** vaccine comprising said attenuated virus. **Japanese encephalitis** virus adapted to Vero cell after 4 passage was used for prepn. of a vaccine. The titer of neutralizing antibodies (the reciprocal of serum diln. resulting in 50% redn. of mouse brain passaged Nakayama virus plaques) for both purified, inactivated virus (PIV) and live, attenuated virus in mice at a dose of 5 .mu.g was 1:320. Mice were immunized with 2 inoculations of test vaccines (comprising PIV) spaced 3 wk apart, then challenged with 500 pfu of mouse-neurovirulent Nakayama virus. Mice immunized with 500 ng of PIV or 50 ng PIV and alum showed 100% protection.

L40 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 2

ACCESSION NUMBER: 1999:521364 CAPLUS

DOCUMENT NUMBER: 131:278534

TITLE: Fluorescence intensity changes for
 anthrylazacrown ethers by paramagnetic metal
 cations

AUTHOR(S): Chang, Jeong Ho; Kim, Hae Joong; Park, Jeung
 Hee; Shin, Young-Kook; Chung,
 Yongseog

CORPORATE SOURCE: Department of Chemistry, Chungbuk National
 University, Cheongju, 361-763, S. Korea

SOURCE: Bull. Korean Chem. Soc. (1999), 20(7), 796-800
 CODEN: BKCSDE; ISSN: 0253-2964

PUBLISHER: Korean Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Three anthrylazacrown ethers in which the anthracene fluorophore .pi. system is sepd. from the electron donor atoms by 1 methylene group were synthesized, and their photophys. study was accomplished. These fluorescent compds. showed a max. fluorescence intensity at pH = 5 in aq. solns. and a decrease in fluorescence intensity upon binding of paramagnetic metal cations (Mn²⁺(d5), Co²⁺(d7), Cu²⁺(d9)). The decrease in fluorescence intensity may be attributed to the paramagnetic effect of metal cations to deactivate the excited state by the nonradiative quenching process. The benzylic N plays a role in changing fluorescence intensity. From the obsd.

Searcher : Shears 308-4994

linear Stern-Volmer plot and the fluorescence lifetime independence of the presence of metal ions, it was inferred that the chelation enhanced fluorescence quenching (CHEQ) mechanism in the system is a ground state static quenching process. Enhanced fluorescence was also obsd. when an excess Na⁺ ion was added to the quenched aq. soln., and it was attributed to cation displacement of a complexed fluorescence quencher.

REFERENCE COUNT: 27

REFERENCE(S): (1) Akkaya, E; J Am Chem Soc 1990, V112, P3590
CAPLUS
(3) Bell, T; J Am Chem Soc 1986, V108, P8109
CAPLUS
(4) Brimage, D; J Chem Soc Chem Commun 1971,
P1385 CAPLUS
(6) Chandross, E; Chem Phys Lett 1971, V9, P393
CAPLUS
(7) Cox, G; J Am Chem Soc 1984, V106, P422
CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 9 OF 22 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 3

ACCESSION NUMBER: 1999:66919 BIOSIS

DOCUMENT NUMBER: PREV199900066919

TITLE: Biological control of fusarium wilt of cucumber by chitinolytic bacteria.

AUTHOR(S): Singh, Pushpinder Paul; Shin, Yong Chul;
Park, Chang Seuk; Chung, Young Ryun (1)

CORPORATE SOURCE: (1) Dep. Microbiol., Gyeongsang Natl. Univ., Chinju
660-701 South Korea

SOURCE: Phytopathology, (Jan., 1999) Vol. 89, No. 1, pp.
92-99.

ISSN: 0031-949X.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Two chitinolytic bacterial strains, *Paenibacillus* sp. 300 and *Streptomyces* sp. 385, suppressed *Fusarium* wilt of cucumber (*Cucumis sativus*) caused by *Fusarium oxysporum* f. sp. *cucumerinum* in nonsterile, soilless potting medium. A mixture of the two strains in a ratio of 1:1 or 4:1 gave significantly ($P < 0.05$) better control of the disease than each of the strains used individually or than mixtures in other ratios. Several formulations were tested, and a zeolite-based, chitosan-amended formulation (ZAC) provided the best protection against the disease. Dose-response studies indicated that the threshold dose of 6 g of formulation per kilogram of potting medium was required for significant ($P < 0.001$) suppression of the disease. This dose was optimum for maintaining high rhizosphere population densities of chitinolytic bacteria (log 8.1 to log 9.3 CFU/g dry weight of potting medium), which were required for the control of *Fusarium* wilt. The ZAC formulation was suppressive when

Searcher : Shears 308-4994

added to pathogen-infested medium 15 days before planting cucumber seeds. The formulation also provided good control when stored for 6 months at room temperature or at 4degreeC. Chitinase and beta-1,3-glucanase enzymes were produced when the strains were grown in the presence of colloidal chitin as the sole carbon source. Partial purification of the chitinases, followed by sodium dodecyl sulfate polyacrylamide gel electrophoresis and activity staining, revealed the presence of five bands with molecular masses of 65, 62, 59, 55, and 52 kDa in the case of *Paenibacillus* sp. 300; and three bands with molecular masses of 52, 38, and 33 kDa in the case of *Streptomyces* sp. 385. Incubation of cell walls of *F. oxysporum* f. sp. *cucumerinum* with partially purified enzyme fractions led to the release of N-acetyl-D-glucosamine (NAGA). NAGA content was considerably greater when pooled enzyme fractions (64 to 67) from *Paenibacillus* sp. were used, because they contained high beta-1,3-glucanase activity in addition to chitinase activity. Suppression of Fusarium wilt of cucumber by a combination of these two bacteria may involve the action of these hydrolytic enzymes.

L40 ANSWER 10 OF 22 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
 ACCESSION NUMBER: 1999-335617 [28] WPIDS
 TITLE: Process for preparing nucleocapside protein from Hantann virus 76-118 and diagnostic agent for hemorrhagic fever with renal syndrome - NoAbstract.
 DERWENT CLASS: B05
 INVENTOR(S): CHUNG, Y J; HONG, S P; KIM, H S; KIM, S O; MOON, S B; NOH, G S; SHIN, Y C; YOO, W D
 PATENT ASSIGNEE(S): (CHEI-N) CHEIL FOODS & CHEM INC
 COUNTRY COUNT: 1
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
KR 98026286	A	19980715	(199928)*		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
KR 98026286	A	KR 1996-44667	19961004

PRIORITY APPLN. INFO: KR 1996-44667 19961004
 ***** DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L40 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 4
 ACCESSION NUMBER: 1998:733317 CAPLUS
 DOCUMENT NUMBER: 130:121894
 Searcher : Shears 308-4994

TITLE: Characterization of an attenuated
Japanese encephalitis virus
adapted to African green monkey kidney cells,
Vero

AUTHOR(S): Chung, Yong-Ju; Hong, Sun Pyo
; Moon, Sang Beom; Shin,
Young-Cheol; Kim, Soo-Ok

CORPORATE SOURCE: R & D Center, Cheiljedang Corp., Kyonggi-Do,
467-810, S. Korea

SOURCE: J. Microbiol. (Seoul) (1998), 36(3), 189-195
CODEN: JOMIFG; ISSN: 1225-8873

PUBLISHER: Microbiological Society of Korea

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Live attenuated **Japanese encephalitis (JE)** virus SA14-14-2 produced in primary dog kidney cells (PDK) was adapted to African green monkey kidney cells, **Vero**. In an effort to gain insight into the mol. basis of the biol. characteristics of the isolated SA14-14-2 (**Vero**) strain, the 1500 nucleotide sequence encoding the envelope (E) gene which possesses major neutralizing epitopes was detd. and compared with the sequences of two other attenuated JE virus strains, SA14-14-2 (PHK) and SA14-14-2 (PDK). The amino acid sequence of the C-terminal region (a.a. 280-500) of the SA14-14-2 (**Vero**) E gene was identical to those of strains SA14-14-2 (PHK) and SA14-14-2 (PDK), while the N-terminal region (a.a. 1-279) showed sequence variation. The distribution of mutations in the N-terminal region was nearly the same among the three attenuated strains, suggesting that the N-terminal sequences might be related with virus-host cell specificity. However, it was found that Lys and Val (a.a.138 and 176, resp.), known to be responsible for attenuation, are still conserved in SA14-14-2 (**Vero**). Animal testing showed that SA14-14-2 (**Vero**) has a neurovirulence phenotype similar to that of the parent SA14-14-2 (PDK) strain in suckling mice. The SA14-14-2 (**Vero**) grew very efficiently in **Vero** cells enough to support vaccine prodn. The growth characteristics of SA14-14-2 (**Vero**) in **Vero** cell and conservation of attenuation determinant of neurovirulence support that SA14-14-2 (**Vero**) could be developed as a new vaccine strain for human use.

REFERENCE COUNT: 20

REFERENCE(S): (8) Hasegawa, H; Virology 1992, V191, P158
CAPLUS
(9) Heinz, F; Adv Virus Res 1986, V31, P103
CAPLUS
(10) Holzmann, H; J Virol 1990, V64, P5156
CAPLUS
(12) Ni, H; J Gen Virol 1995, V76, P401 CAPLUS
(13) Ni, H; J Gen Virol 1995, V76, P409 CAPLUS
Searcher : Shears 308-4994

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1997:709242 CAPLUS

DOCUMENT NUMBER: 128:56770

TITLE: Preparation and characteristics of Ag(I)-ion selective electrode using PDA (6,9,12-trioxa-3,15,21-triazabicyclo[15.3.1]heneicosa-1(21),17,19-triene-2,16-dione) and NdienOenH4 (1,12,15-triaza-3,4:9,10-dibenzo-5,8-dioxacycloheptadecane)

AUTHOR(S): Kim, Hae Joong; Lee, Dong Geun; Chang, Jeong Ho; Chung, Yong Seog; Shin, Young-Kook

CORPORATE SOURCE: Dep. Chem., Chungbuk Natl. Univ., Cheongju, 361-763, S. Korea

SOURCE: J. Korean Chem. Soc. (1997), 41(10), 547-551
CODEN: JKCSEZ; ISSN: 1017-2548

PUBLISHER: Korean Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: Korean

AB Effects of the title film electrode compns. and interference ions (Na, K, Mg, Ca, Co, Ni, Cu, Zn, Cd) on the Ag(I) ion selectivity and sensitivity and pH on p.d. were studied. PDA-PVC-DOP (34:20:46) and NdienOenH4-PVC (75.9:25) film electrodes showed good sensitivity slopes (52.3 and 56.0 mV/decade, resp.) and sensitivity range (1.0 x 10⁻² to 1.0 x 10⁻⁵ M) at relative wide pH range.

L40 ANSWER 13 OF 22 SCISEARCH COPYRIGHT 2000 ISI (R)

ACCESSION NUMBER: 96:893575 SCISEARCH

THE GENUINE ARTICLE: VV272

TITLE: Development of a purified, inactivated, dengue-2 virus vaccine prototype in vero cells: Immunogenicity and protection in mice and rhesus monkeys

AUTHOR: Putnak R; Barvir D A; Burrous J M; Dubois D R; DAndrea V M; Hoke C H; Sadoff J C; Eckels K H (Reprint)

CORPORATE SOURCE: WALTER REED ARMY MED CTR, WALTER REED ARMY INST RES, DEPT BIOL RES, WASHINGTON, DC 20307 (Reprint); WALTER REED ARMY MED CTR, WALTER REED ARMY INST RES, DEPT BIOL RES, WASHINGTON, DC 20307; US FDA, DIV CLIN LAB DEVICES, ROCKVILLE, MD 20857; MERCK RES LABS, BLUE BELL, PA

COUNTRY OF AUTHOR: USA

SOURCE: JOURNAL OF INFECTIOUS DISEASES, (DEC 1996) Vol. 174, No. 6, pp. 1176-1184.

Publisher: UNIV CHICAGO PRESS, 5720 S WOODLAWN AVE,
Searcher : Shears 308-4994

CHICAGO, IL 60637.
ISSN: 0022-1899.

DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: English
REFERENCE COUNT: 49

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The feasibility of a purified, inactivated dengue (DEN) vaccine made in Vero cells was explored, A DEN-2 virus candidate was chosen for production of a monotypic, purified, inactivated vaccine (PIV), Virus was harvested from roller bottle culture supernatants, concentrated, and purified on sucrose gradients. The purified virus was inactivated with 0.05% formalin at 22 degrees C. After inactivation, the virus retained its antigenicity and was immunogenic in mice and rhesus monkeys, in which it elicited high titers of DEN-2 virus-neutralizing antibody. Mice were completely protected against challenge with live, virulent virus after receiving two 0.15-mu g doses of PIV. Monkeys vaccinated with three doses ranging as low as 0.25 mu g demonstrated complete absence or a significant reduction in the number of days of viremia after challenge with homologous virus. These results warrant further testing and development of PIVs for other DEN virus serotypes.

L40 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 5
ACCESSION NUMBER: 1995:928804 CAPLUS
DOCUMENT NUMBER: 123:336855
TITLE: Mice immunized with a dengue type 2 virus E and NS1 fusion protein made in Escherichia coli are protected against lethal dengue virus infection
AUTHOR(S): Srivastava, Ashok Kumar; Putnak, Joseph Robert; Warren, Richard Lloyd; Hoke, Charles Hearn
CORPORATE SOURCE: Department of Virus Diseases, Walter Reed Army Institute of Research, Washington, DC, 20307-5100, USA
SOURCE: Vaccine (1995), Volume Date 1995, 13(13), 1251-8
CODEN: VACCDE; ISSN: 0264-410X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A gene fragment encoding the C-terminal 204 amino acids (AA) from the structural envelope glycoprotein (E) and the N-terminal 65 AA from non-structural protein one (NS1) of dengue type 2 virus (DEN-2) was expressed in Escherichia coli (E. coli) as a fusion protein with staphylococcal protein A. The recombinant fusion protein was purified and analyzed for its antigenicity, its immunogenicity and its ability to protect mice against lethal challenge with live DEN-2 virus. The recombinant protein was reactive with anti-DEN-2 polyclonal and monoclonal antibodies. Mice immunized with the purified fusion protein made anti-DEN-2 antibodies measured by the
Searcher : Shears 308-4994

hemagglutination-inhibition (HI) and neutralization (N) tests, and were protected against lethal challenge with DEN-2 virus administered by intracranial inoculation.

L40 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1995:407838 CAPLUS

DOCUMENT NUMBER: 123:94575

TITLE: Recognition of Ag(I) ion by pyridino-azacrown ethers and N3O2-donor azacrown ether

AUTHOR(S): Lee, Dong Geun; **Chung, Yongseog;**

Shin, Young-Kook

CORPORATE SOURCE: Dep. Chem., Chungbuk National Univ., Cheongju, 360-763, S. Korea

SOURCE: J. Korean Chem. Soc. (1995), 39(2), 114-17

CODEN: JKCSEZ; ISSN: 1017-2548

DOCUMENT TYPE: Journal

LANGUAGE: Korean

AB Extn. equil. consts. and free energy parameters for aza crown ethers and transition metal cations were detd. in H2O-CHCl3 system at 25.degree.. Selectivity coeffs. for Ag+-selective electrodes based on the aza crown ethers are also reported.

L40 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1994:712583 CAPLUS

DOCUMENT NUMBER: 121:312583

TITLE: Syntheses and properties of new liquid crystalline compounds derived from hexaazatriphenylene

AUTHOR(S): **Chung, Yongseog;** Hwang, Dong-Jin;

Shin, Young-Kook

CORPORATE SOURCE: Dep. Chem., Chungbuk Natl. Univ., Cheongju, 360-763, S. Korea

SOURCE: J. Korean Chem. Soc. (1994), 38(7), 533-6

CODEN: JKCSEZ; ISSN: 1017-2548

DOCUMENT TYPE: Journal

LANGUAGE: Korean

AB Hexaazatriphenylene hexaalkyl esters were prepd. and tested for liq.-cryst. behavior by DCS.

L40 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1993:657375 CAPLUS

DOCUMENT NUMBER: 119:257375

TITLE: Molecular interaction of dimethyl sulfoxide with water and alkanols: a vapor pressure osmometry study

AUTHOR(S): Kim, Eung Gyun; **Chung, Yongseog;**

Shin, Young Kook

CORPORATE SOURCE: Dep. Chem., Chungbuk Natl. Univ., Cheongju, 360-763, S. Korea

Searcher : Shears 308-4994

SOURCE: J. Korean Chem. Soc. (1993), 37(8), 753-6
CODEN: JKCSEZ; ISSN: 1017-2548

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Studies on the mol. interactions of DMSO with water and/or some alkanols were carried out by vapor pressure osmometry at 40.degree.. Neg. deviation from Raoult's law was obsd. for the DMSO-water, methanol, ethanol, 1-propanol, 2-propanol, and 2-methyl-1-propanol systems, whereas pos. deviation from Raoult's law was obsd. for the DMSO-1-butanol and 1-pentanol systems. The results were interpreted in terms of mol. interactions between unlike mols., and of self-assocn. of DMSO mols., resp. Measured chem. shift of hydroxyl proton of the solvents also supported the results.

L40 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 6

ACCESSION NUMBER: 1993:551985 CAPLUS

DOCUMENT NUMBER: 119:151985

TITLE: Effects of barbiturates on the rotational relaxation time of 1,6-diphenyl-1,3,5-hexatriene in native and model membranes

AUTHOR(S): Chung, Yong Za; Shin, Yong Hee
; Choi, Chang Hwa; Park, Hyung Sook; Koh, Yeong Sim; Yun, Il

CORPORATE SOURCE: Coll. Pharm., Kyung Sung Univ., Pusan, 608-736, S. Korea

SOURCE: Arch. Pharmacol Res. (1992), 15(4), 298-303
CODEN: APHRDQ; ISSN: 0253-6269

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Synaptosomal plasma membrane vesicles (SPMV) were isolated from fresh bovine cerebral cortex. The effects of barbiturates on the rotational relaxation time of 1,6-diphenyl-1,3,5-hexatriene (DPH) in intact SPMV and model membranes of total lipids (SPMVTL) and phospholipids (SPMVPL) extd. from SPMV were examd. Barbiturates decreased the rotational relaxation time of DPH in intact SPMV in a dose-dependent manner. In contrast, they did not affect the rotational relaxation time of DPH in SPMVTL and even dose-dependently increased the rotational relaxation time of DPH in SPMVPL.

L40 ANSWER 19 OF 22 BIOSIS COPYRIGHT 2000 BIOSIS

ACCESSION NUMBER: 1993:62439 BIOSIS

DOCUMENT NUMBER: PREV199344028089

TITLE: Immunization of rhesus monkeys with baculovirus recombinant dengue 4 E protein.

AUTHOR(S): Putnak, J. R. R. J. Feighny; Dubois, D. R.; Strupczewski, K. L.; Ramsey, K. H.; Summers, P. L.; Burrous, M. J.; Hoke, C. H.

CORPORATE SOURCE: Div. Communicable Dis. and Immunol., Walter Reed Army
Searcher : Shears 308-4994

SOURCE: Inst. Res., Washington, D.C
 American Journal of Tropical Medicine and Hygiene,
 (1992) Vol. 47, No. 4 SUPPL., pp. 104.
 Meeting Info.: 41st Annual Meeting of the American
 Society of Tropical Medicine and Hygiene, Seattle,
 Washington, USA, November 15-19, 1992. AM J TROP MED
 HYG
 ISSN: 0002-9637.

DOCUMENT TYPE: Conference

LANGUAGE: English

L40 ANSWER 20 OF 22 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 7

ACCESSION NUMBER: 1991:276163 BIOSIS

DOCUMENT NUMBER: BA92:8778

TITLE: EFFECTS OF BARBITURATES ON THE FLUIDITY OF
 PHOSPHATIDYLETHANOLAMINE MODEL MEMBRANES.

AUTHOR(S): YUN I; KIM H-I; HWANG T-H; KIM J-R; KIM I-S;

CHUNG Y-Z; SHIN Y-H; JUNG H-O; KANG
 J-S

CORPORATE SOURCE: DEP. ORAL BIOL. BIOPHYSICS, COLL. DENT., PUSAN NATL.
 UNIV. PUSAN 602-061, KOREA.

SOURCE: KOREAN J PHARMACOL, (1990) 26 (2), 209-218.
 CODEN: KJPHE3. ISSN: 0377-9459.

FILE SEGMENT: BA; OLD

LANGUAGE: English

AB Intramolecular excimer formation with 1,3-di(1-pyrenyl)propane
 (Py-3-Py) and fluorescence polarization with 1,6-diphenyl-1,3,5-
 hexatriene (DPH) were used to evaluate the effects of barbiturates
 on the bulk fluidity of the model membranes of
 phosphatidylethanolamine fraction of synaptosomal plasma membrane
 vesicles (SPMVPE) isolated from bovine cerebral cortex. In the
 SPMVPE, barbiturates decreased the excimer to monomer fluorescence
 intensity ratio (I'/I) of Py-3-Py and increased the fluorescence
 polarization (P), anisotropy (r), limiting anisotropy (r_8), order
 parameter (S) and rotational relaxation time ($\tau_{\text{hivin.P}}$) of DPH in a
 dose-dependent manner. The relative potencies of barbiturates to
 order the SPMVPE were in the order: pentobarbital > hexobarbital >
 amobarbital > phenobarbital. Hence, it is concluded that
 barbiturates have ordering effects on the SPMVE. And the
 membrane-ordering potencies of barbiturates appear to be correlated
 with the potencies for enhancement of GABA-stimulated chloride influx
 and with the anesthetic effects of barbiturates.

L40 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 8

ACCESSION NUMBER: 1987:616528 CAPLUS

DOCUMENT NUMBER: 107:216528

TITLE: A study on the ultrastructural alterations of
 the mouse liver induced by the administration of
 large doses of fat soluble vitamins

Searcher : Shears 308-4994

AUTHOR(S) : **Chung, Yong Won; Shin, Young Chul**
 CORPORATE SOURCE: Coll. Med., Korea Univ., Seoul, S. Korea
 SOURCE: Koryo Taehakkyo Uikwa Taehak Nonmunjip (1987),
 24(1), 281-97
 CODEN: KTUNDD
 DOCUMENT TYPE: Journal
 LANGUAGE: Korean

AB Ultrastructural alternations of the liver, esp. of the hepatocytes and Ito cells, were obsd. in mice parentally given doses of vitamin D, E, and K once a day for 10, 20, and 30 days, resp. Rough endoplasmic reticulum and polysomes were increased together in the hepatocytes and endothelial, Kupffer, and Ito cells of all groups given vitamins D, E, and K. Hepatocytes of mice given vitamin D showed accumulation of lipid-like materials in all the groups and were slightly enlarged in the 30 day group. Hepatocytes of mice given vitamin E were enlarged and stored glycogen particles in the 30 day group. Hepatocytes of mice given vitamin K were not enlarged, but showed accumulations of lipid-like materials in all the groups and of lipid droplets in the 30 day group. Lipid droplets were highly increased in the Ito cells of the 30 day group of vitamin E. The results suggest that the intrahepatic metab. is elevated for a period of time by hypervitaminosis D, E, and K and that the Ito cells are storage sites of vitamin E.

L40 ANSWER 22 OF 22 CONFSCI COPYRIGHT 2000 CSA
 ACCESSION NUMBER: 1998:37709 CONFSCI
 DOCUMENT NUMBER: 98-037709
 TITLE: Unusual response in Rhesus monkeys vaccinated with a recombinant subunit dengue-2 E-NS1 fusion protein
 AUTHOR: **Srivastava, A.K.**; Sullivan, J.L.;
 Putvatana, R.; Innis, B.L.; Simmons, M.; **Putnak, J.R.**
 CORPORATE SOURCE: Dep. Virus Diseases and Dep. Biologics Res., Walter Reed Army Inst. Res., Washington, DC, USA
 SOURCE: ASTMH, 60 Revere Drive, Suite 500, Northbrook, IL 60062, USA, Abstracts available. Price \$10..
 Meeting Info.: 981 5000: 46th Annual Meeting of the American Society of Tropical Medicine and Hygiene (9815000). Lake Buena Vista, FL (USA). 7-11 Dec 1997.
 American Society of Tropical Medicine and Hygiene.
 DOCUMENT TYPE: Conference
 FILE SEGMENT: DCCP
 LANGUAGE: English

(FILE 'MEDLINE' ENTERED AT 12:13:51 ON 27 SEP 2000)

L41 877 SEA FILE=MEDLINE ABB=ON PLU=ON "ENCEPHALITIS VIRUS, JAPANESE"/CT

L42 4631 SEA FILE=MEDLINE ABB=ON PLU=ON "VERO CELLS"/CT

L43 30 SEA FILE=MEDLINE ABB=ON PLU=ON L41 AND L42

L44 5023 SEA FILE=MEDLINE ABB=ON PLU=ON VACCINES/CT

L45 26397 SEA FILE=MEDLINE ABB=ON PLU=ON VACCINATION/CT

L46 28610 SEA FILE=MEDLINE ABB=ON PLU=ON IMMUNIZATION/CT

L47 3 SEA FILE=MEDLINE ABB=ON PLU=ON L43 AND (L44 OR L45 OR L46)

-key terms

=> d 1-3 .beverlymed; fil hom

L47 ANSWER 1 OF 3 MEDLINE

AN 1999429344 MEDLINE

TI Immunization with plasmid DNA encoding the envelope glycoprotein of Japanese Encephalitis virus confers significant protection against intracerebral viral challenge without inducing detectable antiviral antibodies.

AU Ashok M S; Rangarajan P N

SO VACCINE, (1999 Aug 20) 18 (1-2) 68-75.

Journal code: X60. ISSN: 0264-410X.

AB A plasmid DNA construct, pCMXENV encoding the envelope (E) glycoprotein of Japanese Encephalitis virus (JEV), was constructed. This plasmid expresses the E protein intracellularly, when transfected into Vero cells in culture. The ability of pCMXENV to protect mice from lethal JEV infection was evaluated using an intracerebral (i.c.) JEV challenge model. Several independent immunization and JEV challenge experiments were carried out and the results indicate that 51 and 59% of the mice are protected from lethal i.c. JEV challenge, when immunized with pCMXENV via intramuscular (i.m.) and intranasal (i.n.) routes respectively. None of the mice immunized with the vector DNA (pCMX) survived in any of these experiments. JEV-specific antibodies were not detected in pCMXENV-immunized mice either before or after challenge. JEV-specific T cells were observed in mice immunized with pCMXENV which increased significantly after JEV challenge indicating the presence of vaccination-induced memory T cells. Enhanced production of interferon-gamma (IFN-gamma) and complete absence of interleukin-4 (IL-4) in splenocytes of pCMXENV-immunized mice on restimulation with JEV antigens in vitro indicated that the protection is likely to be mediated by T helper (Th) lymphocytes of the Th1 sub-type. In conclusion, our results demonstrate that immunization with a plasmid DNA expressing an intracellular form of JEV E protein confers significant protection against i.c. JEV challenge even in the absence of detectable antiviral antibodies.

L47 ANSWER 2 OF 3 MEDLINE

AN 92024099 MEDLINE

Searcher : Shears 308-4994

- TI Comparison of protective immunity elicited by recombinant vaccinia viruses that synthesize E or NS1 of Japanese encephalitis virus.
- AU Konishi E; Pincus S; Fonseca B A; Shope R E; Paoletti E; Mason P W
- SO VIROLOGY, (1991 Nov) 185 (1) 401-10.
Journal code: XEA. ISSN: 0042-6822.
- AB Immunization with recombinant vaccinia viruses that specified the synthesis of Japanese encephalitis virus (JEV) glycoproteins protected mice from a lethal intraperitoneal challenge with JEV. Recombinants which coexpressed the genes for the structural glycoproteins, prM and E, elicited high levels of neutralizing (NEUT) and hemagglutination inhibiting (HAI) antibodies in mice and protected mice from a lethal challenge by JEV. Recombinants expressing only the gene for the nonstructural glycoprotein, NS1, induced antibodies to NS1 but provided low levels of protection from a similar challenge dose of JEV. Antibodies to the NS3 protein in postchallenge sera, representing the degree of infection with challenge virus, were inversely correlated to NEUT and HAI titers and levels of protection. These results indicate that although vaccinia recombinants expressing NS1 can provide some protection from lethal JEV infection, recombinants expressing prM and E elicited higher levels of protective immunity.
- L47 ANSWER 3 OF 3 MEDLINE
- AN 90244392 MEDLINE
- TI Induction of protective immunity in animals vaccinated with recombinant vaccinia viruses that express PreM and E glycoproteins of Japanese encephalitis virus.
- AU Yasuda A; Kimura-Kuroda J; Ogimoto M; Miyamoto M; Sata T; Sato T; Takamura C; Kurata T; Kojima A; Yasui K
- SO JOURNAL OF VIROLOGY, (1990 Jun) 64 (6) 2788-95.
Journal code: KCV. ISSN: 0022-538X.
- AB A cDNA clone representing the genome of structural proteins of Japanese encephalitis virus (JEV) was inserted into the thymidine kinase gene of vaccinia virus strains LC16mO and WR under the control of a strong early-late promoter for the vaccinia virus 7.5-kilodalton polypeptide. Indirect immunofluorescence and fluorescence-activated flow cytometric analysis revealed that the recombinant vaccinia viruses expressed JEV E protein on the membrane surface, as well as in the cytoplasm, of recombinant-infected cells. In addition, the E protein expressed from the JEV recombinants reacted to nine different characteristic monoclonal antibodies, some of which have hemagglutination-inhibiting and JEV-neutralizing activities. Radioimmunoprecipitation analysis demonstrated that two major proteins expressed in recombinant-infected cells were processed and glycosylated as the authentic PreM and E glycoproteins of JEV. Inoculation of rabbits with the infectious recombinant vaccinia virus resulted in rapid production of antiserum specific for the PreM and E glycoproteins of JEV. This antiserum had both hemagglutination-inhibiting and virus-neutralizing activities

Searcher : Shears 308-4994

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against JEV. Furthermore, mice vaccinated with the recombinant also produced JEV-neutralizing antibodies and were resistant to challenge with JEV.

FILE 'HOME' ENTERED AT 12:17:55 ON 27 SEP 2000

Searcher : Shears 308-4994